# A Clinical Lecture
ON
# COMBINED CONGENITAL DEFECTS AND ORGANIC DISEASE OF THE HEART.

*Delivered in the Royal Infirmary, Newcastle-upon-Tyne,*

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GENTLEMEN,—In Quain's Anatomy, 1892, vol. ii., part 2, p. 386, Professor G. D. Thane, after alluding to the fact that the natural aortic arch of man and of all mammalia is a left one, produced by the persistence and development of the left fourth arch, says: "Reference may here be made to the complete lateral transposition which is occasionally seen in the aortic arch and pulmonary arteries as well as in the great veins and several divisions of the heart and which may affect only those parts (dextrocardia) or may be accompanied by a similar transposition of the viscera of the body generally (situs inversus). Such cases are usually unattended by any disturbance of function or other unnatural conditions of structure. There is, in fact, only a change of position which may be compared to that in which the natural parts would appear if viewed by reflection from a mirror. From the direction of the apex beat towards the right and other deviations from the normal position the existence of this transposition is capable of being ascertained during life."

In December, 1898, the subject of the following notes first came under my care. He was then a youth aged 18 years, slightly under the average in height, but was otherwise well developed, healthy-looking, and rather florid. Until three years previously he had been a healthy lad and had taken his part in the ordinary games of boyhood without inconvenience or fatigue. At this period he had rheumatic fever which confined him to bed for three weeks. He made a good recovery but had never felt so well since. He had been conscious of shortness of breath at times and had suffered from palpitation. The pulse was 80, water-hammer in character, and collapsed readily under the finger. The apex of the heart was seen and felt beating between the fifth and sixth ribs on the right side of the body fully one inch below the right nipple. Here the impulse was well marked and was equal in force to that felt in ordinary circumstances in the usual apex area when the left ventricle is hypertrophied and dilated. Very feeble impulse was felt at the xiphoid cartilage. Over the second right costal cartilage and base of the heart generally there were heard well-marked systolic and diastolic murmurs. These murmurs were carried downwards and to the right for about two inches, as well as a short distance down the sternum where they were gradually lost. Over the apex area in the right chest the first sound was sharp and pronounced but was otherwise healthy. The lungs were resonant and healthy all over. There was no sign of pleural effusion or of pneumothorax, nor a history of previous lung trouble that was capable of explaining the cardiac displacement. Both sides of the chest were symmetrical and measured equally 15½ inches. Below the sixth rib on the right side there was a comparatively limited area of dulness, while on the left side dulness began at a similar level and was carried downwards to the lower border of the left costal arch and round to the back. From the size of this area of dulness on the left side it was suggestive of a transposed liver. Between these two areas of dulness was one that gave a tympanitic note when percussed. The abdomen was otherwise normal. The urine contained urates but was free from albumin and sugar. He was ordered a mixture of digitalis, ammonia, and spirit of chloroform, and pills of mercury with colocynth occasionally. When I saw him three weeks afterwards he had wonderfully improved so far as his symptoms were concerned, and on Feb. 20th, 1899, the patient was still keeping well. The pulse was 80 and water-hammer in character. On June 12th, 1899, the pulse was 82 and of a water-hammer type. There were systolic and diastolic murmurs over the base of the heart. The diastolic murmur, while ceasing at the third left costal cartilage, was carried down to the cardiac impulse just internal to the right nipple. There was no murmur heard over the back of the chest at the inferior angle of either scapula.

At varying intervals of from four to six months I have had the opportunity of examining this youth and of recording facts. It is sufficient to say that there have been a gradual increase in the size of the heart and a development of a systolic murmur over the apex area, suggesting hypertrophy of the left ventricle and mitral regurgitation. In the autumn of 1900 the cardiac impulse was seen and felt two inches below the right nipple and in a line with it, but beyond the first sound at the apex having been replaced by a murmur the cardiac bruits remain the same. With the development of the mitral murmur the heart symptoms became less urgent. By July, 1901, he had so improved in health and lost his cardiac symptoms that he was indulging in cycling and mild tennis-playing. His pulse was 84 and of a water-hammer type. There were systolic and diastolic murmurs at the base of the heart conducted down the sternum while at the apex area there was a well-marked systolic murmur. There was very slight epigastric pulsation. When re-examined in April, 1902, the condition of the heart was unaltered, his general state of health was good, and he was remaining free from cardiac symptoms. My diagnosis is aortic and mitral regurgitation occurring in a displaced heart (dextrocardia) and due to rheumatic endocarditis.

The literature of dextrocardia cannot be said to be very extensive. Whittaker, in the Twentieth Century Practice of Medicine, vol. iv., p. 59, in dealing with congenital anomalies of the heart says: "Sometimes the direction of the heart is changed so that the apex points to the right instead of the left, sometimes the position is vertical. These displacements are frequently found associated with general transposition of the viscera. In this general transposition the heart lies upon the right side (dextrocardia). The fundus of the stomach lies upon the right side with the spleen, while the pylorus and duodenum lie upon the left. The rest of the intestine is likewise changed. The cæcum lies upon the left, the sigmoid flexure and rectum lie upon the right. The ascending and descending colon change names. The liver lies in the left hypochondrium and the right and left lobes change places. The gall-bladder, the gall-ducts, the ligaments and fissures show corresponding dislocation. The right kidney lies higher than the left and the left testicle stands higher than the right. Malformations of individual organs are very rare in typical situs inversus. ..... The transposition of the viscera is explained by an abnormal habitus with reference to the umbilical vesicle in the embryo. Dareste showed that when a hen's egg is warmed on one side a transposition of the viscera more or less pronounced occurs in the majority of cases. The inversion takes place whenever the embryo does not turn at the right time from the right to the left. The condition is not now so rare as was formerly believed, since the advance of methods of examination discloses the transposition during life. Hitherto the alteration was discovered only upon the post-mortem table. ..... The total transposition of the viscera in no way interferes with long life and perfect action of all the organs. Symptoms, when present, are due to complications or accidental associated malformations."

The diagnosis of inversion of the heart is easy enough, since it is sufficient to feel the apex beating in the right instead of in the left side of the chest. Percussion confirms the situation of the organ. In every case it must be demonstrated that the heart has not been displaced to the right by pleuritic effusion occupying the left chest; also that there has not been disease of the right lung followed by adhesion and retraction. Constantin Paul had the opportunity of observing two cases at the St. Antoine Hospital and to these I will briefly allude. Case 1.—The patient was a woman, aged 35 years, who showed an arrest of development on the left side of the body. In her the apex beat of the heart was felt in the fifth right intercostal space 10 centimetres (four inches) from the middle line of the sternum. The heart showed slight left-sided hypertrophy. There was neither souffle nor irregularity of rhythm. The liver was not displaced. There was atrophy of the left chest and the left breast was smaller than the right, a remark that also applied to the left forearm. Case 2.—The patient was a lad, aged 15 years, incompletely developed, whose heart was beating in the right side of the chest in the fifth intercostal space seven centimetres

(two and three-quarter inches) from the mid-line. On auscultation the heart was normal. The liver on the left side of the body was of normal size. The spleen on the right side seemed to be small. The patient was mainly left-handed. Constantin Paul saw this patient 16 years afterwards; he had grown very little. The heart had developed to some extent; its apex beat was further removed to the right, being eight and a half centimetres (three and a half inches) from the middle line of the sternum.

From these cases it will at once be seen that inversion of the heart may or may not be accompanied by inversion of the other viscera. In Paul's second case the inversion appears to have been pretty complete, since it involved other organs. Inversion of the viscera does not necessarily produce any serious trouble, for persons who are the subjects of it may be ignorant of the fact. Still, it is only proper that the transposition should not pass unperceived by the medical attendant. There are some congenital defects of the heart that are incompatible with life—e.g., where there is ectopia cordis—i.e., where the heart lies outside the body—a defect that belongs rather to teratology than to medicine.

Professor A. Birmingham published in the *Journal of Anatomy and Physiology*, vol. xxvii., 1893, p. 139, the details of a case of dextrocardia with congenital abnormalities in a young woman, aged 20 years, who was of rather short stature and who during life had been very cyanosed. In listening to her chest Dr. Joseph F. O'Carroll, the medical attendant, heard a loud harsh systolic murmur from the second right intercostal space downwards to below the right nipple and into the right axilla. On opening the chest after death not only was the apex of the heart found to be directed to the right but the whole organ was twisted on its long axis, the aorta was seen to rise from the right ventricle in the situation of the pulmonary artery, while the pulmonary artery arose from the same ventricle, its orifice being placed midway between the base and apex among the columnæ carneæ; its lumen was only a quarter of an inch. The inter-ventricular septum was perforated so that the freest communication possible existed between the two cavities. The inter-auricular septum was also incomplete.

In the *Journal of Anatomy and Physiology*, vol. xxvi., 1892, p. 117, Professor T. Wardrop Griffith describes the anatomical peculiarities observed in a child six months old, in whom there were detected during life dextrocardia with very marked cyanosis and transposition of the viscera and in whom after death the two auricles were found communicating with a ventricle that was divided by an incomplete septum; the inferior vena cava was absent, its place being taken by a vessel formed by the junction of four hepatic veins.

I have abstracted these cases from medical literature in order to emphasise the remark that there may be in dextrocardia some congenital defect in addition to right-sided displacement of the heart. In all circumstances, as already mentioned, it is necessary to eliminate, where the heart is found beating in the right chest, such causes as left-sided pleural effusion, right-sided pulmonary excavation with retraction of lung and pericardial adhesion, also left-sided pneumo-thorax. In my case of dextrocardia recorded above there is no evidence of there having been any chest affection capable of causing displacement of the heart; besides, a skiagram that was taken shows, both from the shape of the organ and from the direction of the apex, that the dextrocardia is congenital. The other point—one that is more difficult to answer—is whether the displaced heart was congenitally perfect and free from disease and has simply become affected as a consequence of rheumatic fever through an endocardial lesion leading to aortic regurgitation, or whether the systolic and diastolic murmurs that are heard indicate defective septa and abnormality of the valves. In favour of the view that there is aortic regurgitation and that it is the consequence of endocarditis we have (1) the previous good health of the patient until a particular illness; (2) the history of rheumatic fever, an illness which experience shows is one of the most frequent causes of incompetent aortic valves, especially in young subjects; (3) the absence of cyanosis at birth and all through life—although cyanosis, I admit, is not necessarily present when there are defective septa; (4) the water-hammer character of the pulse and its typical aortic type, as shown in some sphygmograms that were taken; (5) exaggeration of the cardiac murmurs and the development under observation of a mitral regurgitant murmur; (6) the fact that there are no loud harsh murmurs heard all over the chest as occurs in most cases of congenital heart defect; and (7) that although *diastolic* murmurs may be heard in congenital heart disease yet they are extremely rare. I have given my reasons for not regarding the case as one of defective septa nor do I think that there is a patent ductus arteriosus. In such a condition a thrill is felt over the second left intercostal cartilage and a very prolonged systolic murmur is heard, rather a late or post-systolic murmur in fact, followed by an accentuated second sound at the base of the heart, and attended by well-marked dyspnœa on exertion and by cyanosis.

With the second case, that of a man who died recently, many of you are familiar, having seen the patient with me in the wards upstairs. He was a ship's carpenter, aged 37 years, and was admitted under my care on April 1st, 1902, complaining of shortness of breath, cough, and swelling of the legs of two years' duration. Beyond the fact of his mother having died from apoplexy there was nothing in the family history that calls for comment. The patient had indulged freely in alcohol. There was no history of syphilis or of rheumatic fever. About six years before, when working in a shipyard on the Clyde, he fell a distance of 25 feet and injured the front of his chest. He was taken to the Western Infirmary, Glasgow, where he lay for about two months under the care of Professor (now Sir) William T. Gairdner. No ribs were broken as a consequence of the accident nor was there any spitting of blood. Until two years previously, except for the accident alluded to, he was a healthy man. At this date he began to suffer from shortness of breath and swelling of the feet. He also had cough and morning sickness and was consequently unable to follow his employment. Owing to difficulty of breathing the patient had had of late to be propped up in bed. His face was pale, his cheeks were slightly bluish, and his lips were cyanosed. The pulse was 66, feeble and irregular; the legs were œdematous. There was also œdema of the arms and hands; the hands were cold and cyanosed. There was venous pulsation in the neck. The urine was high-coloured, scanty, with a specific gravity of 1025, and contained a trace of albumin. The chest was barrel-shaped with wide intercostal angle and its wall was slightly œdematous. The heart's impulse was diffuse and wavy. Epigastric pulsation was well marked; pulsation was also observed in the third, fourth, and fifth interspaces to the left of the sternum. The apex beat was felt in the sixth interspace two inches external to the left nipple. A well-marked and prolonged thrill could be felt there which was entirely systolic; it was long and quivering. The area of cardiac dulness was increased transversely. At the apex there was heard a loud murmur occupying the whole of the systole, too coarse and rough to be called musical, rather sharp in its incidence, yet never preceding the systole, and while well conducted towards the left axilla it was also very distinct internal to the apex beat. This loud systolic murmur was heard over the whole of the left chest posteriorly and all down the spine as far as the sacrum. At times the second sound was reduplicated at the apex. Over the aortic area there was a systolic murmur which was conducted into the vessels of the neck. A well-marked systolic murmur was heard over the tricuspid area and as the left base of the heart was approached from this area there could be heard a diastolic murmur which at times was not very audible owing to the second sound being distinctly accentuated. It was difficult to assign to this diastolic murmur an origin that was satisfactory. It did not seem to come quite within the category of an aortic murmur nor was it apparently one of those diastolic murmurs that are occasionally met with in mitral stenosis. Its source, therefore, must be left an open question. In the lungs numerous bronchial râles were heard and there was dulness over the base of each lung. The abdomen was distended, being resonant in front and dull in the flanks; fluctuation was readily obtained. The liver was enlarged and tender. Splenic dulness was not perceptibly increased.

Under treatment the patient temporarily improved. The cardiac murmurs, however, remained unaltered and beyond the fact that later there was a disappearance of the second sound at the apex there was no new development that calls for notice during the four weeks that he was under my care. On the last day of April, at a time when the dropsy of the extremities was disappearing, the patient unfortunately

grazed his leg on the bedstead. A day or two after this the skin of the leg became red and acutely inflamed like erysipelas. He had a rigor and the temperature rose to 101·4° F. A few days prior to the accident his general condition was, on the whole, satisfactory. The patient, as already stated, seemed to be improving. Under the administration of digitalis, to which subsequently diuretin was added, the quantity of urine rose from 22 ounces on April 22nd to 136 ounces on May 1st and concurrently with this the dropsy was fast disappearing. In addition to the rapid diminution of the œdema the albumin disappeared from the urine, a circumstance that suggested a cardiac origin for the albuminuria. It was at this stage that the second cardiac sound ceased to be audible at the apex and that notwithstanding the large quantities of urine passed the breath sounds were still very deficient over the base of each lung. The patient died suddenly on the evening of May 2nd. Dr. James Muirhead had been speaking to him and had just left him when his head was observed to fall back and he was found to be dead.

At the post-mortem examination both pleural cavities were found to contain a large quantity of serum. The lungs were congested and œdematous. The heart was enlarged. The left ventricle was hypertrophied but the enlargement affected particularly the right side of the heart. The aortic valve was competent; that of the pulmonary artery was incompetent. On opening the left ventricle its wall was observed to be of more than usual thickness and its cavity was slightly dilated. The mitral orifice was incompetent. The valves were thickened at the tips, along their margins, and at the bases; the chordæ tendineæ were thickened. The aorta was small, being about half the size of the pulmonary artery. Its valve was composed of only two segments. The interior of the aorta was healthy and the coronary arteries were normal. Stretching across the interior of the left ventricle just underneath the aortic orifice was a misplaced chorda tendinea. The pulmonary artery was widely dilated; its valve segments were normal in number but they were thickened along their free border; so, too, were the corpora Arantii. The valve was incompetent and the thickening of its segments was such as would also probably cause slight obstruction to the circulation. The right ventricle was large and dilated. There was a large patent foramen ovale in the inter-auricular septum which was imperfectly closed by a flap. The liver was enlarged and nutmeg-like. The spleen presented nothing abnormal. The kidneys were congested (heart kidneys) and firm, their capsule stripping off readily.

As the patient had been under the care of Professor Gairdner in the Western Infirmary, Glasgow, a few years previously I wrote to Sir William Gairdner and asked him if he could remember the patient or throw any light upon the case. I have received through Dr. R. Barclay Ness, one of the assistant physicians to that institution, the clinical notes bearing upon the case. I have Sir William Gairdner's permission to reproduce these. The notes exhibit, as might be expected, the usual carefulness and completeness which old Glasgow students remember as characteristic of the methods of their esteemed teacher. When I came to compare the two sets of notes there were a few discrepancies as regards dates and origin of the illness that are naturally to be expected from a patient whose illness has lasted a few years and these can at once be set aside although some of them may be incidentally mentioned so as to bring the details of Sir William Gairdner's clinical examination into line with my own.

A man, aged 32, shipwright, admitted into the Western Infirmary Oct. 28th, 1897, complaining of breathlessness and swelling of feet. Note by Professor Gairdner, Oct. 29th, 1897.—Admitted with a very evident cardiac lesion. Apex beat is in normal interspace, but at least three-quarters of an inch outside the nipple line; it is fairly well defined at this point and for some distance around so intensely that it is not quite easy to define the exact locality. There is a murmur ventricular systolic in rhythm and emphatically blowing in character which compels the attention of the ear so that its minor peculiarities are apt to be overlooked. It is unusually prolonged, covering a large part of the first sound and interval, but at no point does it lose the blowing character and also a certain hollowness of quality which at times approaches a musical intonation but does not quite reach what would be called a distinctly musical murmur. So far as observed the murmur succeeds the first sound, no part of it preceding the sound, and the sound itself, coincidently with the impulse, is distinctly appreciable though not emphatic and is to a considerable extent merged in the murmur. The murmur, therefore (Dr. Gairdner remarks), has distinctly the characters of mitral regurgitation. At the same time it is very loudly propagated an inch or more to the right of the apparent apex and has there more roughness of quality but not so much change as definitely to suggest any new source of murmur. This murmur, though still audible, loses notably in intensity towards and still more above the line of the nipple and it also loses notably as the sternum is approached, so much so that on the whole it appears to Dr. G. that the suspicion of tricuspid need scarcely be entertained. There is a very notable increase in the emphasis of the second sound at the left border of the sternum. ..... The murmur just alluded to is propagated rather extensively to the back with a considerable loss of intensity but preserving in all respects its blowing character and prolongation. It is heard not only at the angle of the scapula but throughout the whole interscapular space. There is also towards the base and apparently distinct from the above a double ventricular systolic and diastolic murmur, which cannot be perhaps definitely localised as to give at all distinctively the aortic character but which is heard at least half-way down the sternum, and also including the ventricular diastolic element, in the vessels of the neck. These murmurs are not very loud and certainly might be capable of escaping observation and might be considered due to bone conduction so far as the ventricular systolic is concerned, but the ventricular diastolic, as it appears to Dr. G. and Dr. Cochrane in two examinations, is so distinctly established as to preclude this last idea, and it is perhaps worthy of note that the basic murmurs are almost as distinct to the left of the manubrium as to the right. ..... Thrill is felt best over the apex beat. ..... Epigastric pulsation present. ..... Patient left hospital Nov. 28th, 1897.

Sir William Gairdner's notes were taken four and a half years ago and allowing for such pathological changes as are bound to occur in a diseased heart during this period there is, on the whole, pretty general agreement between the clinical data then and recently. Sir William Gairdner, like myself, regarded the loud systolic murmur as pointing to mitral regurgitation. He, too, was struck by its wide propagation and also by the fact that there was a basic diastolic murmur which was not localised and was extremely apt to escape detection. The heart had during these four and a half years undergone some change: it had become still further enlarged, its apex beat was more displaced to the left than previously and in the meantime there had developed a tricuspid murmur. At the necropsy the heart presented combined congenital defects and organic lesions—e.g., (1) a patent foramen ovale and aortic bicuspid valve, and (2) a mitral regurgitation and thickened valve segments, also widely dilated pulmonary artery with thickened valves which closed imperfectly.

With a heart showing such a number of lesions as that of the patient in the above case it is difficult to say definitely to which of them the loud prolonged systolic murmur is to be attributed. Bruits in the cardio-vascular system are mainly due to vibration, owing to currents of blood being forced with rapidity through a constricted orifice into a wider channel beyond and causing shock, or it may be that the impact of this moving liquid throws the more tranquil mass into a series of eddies. I am therefore disposed to think that in consequence of the hypertrophied wall of the left ventricle, the thickened mitral curtains, and the narrow aorta, rendered narrower by the pressure upon it of the dilated pulmonary artery, the loud systolic murmur was generated within the left ventricle. The patent foramen ovale was incapable of causing it. The dilated pulmonary artery probably did not of itself cause a systolic murmur, although its thickened valves may possibly have contributed to the development of such a murmur. Beyond alluding to the bicuspid valve of the aorta this circumstance calls for no comment other than that where bicuspid semilunar valves are met with in the pulmonary artery or aorta the malformation is usually due to two of the segments of the valve coalescing so as to form one large segment. Such valves are said to exhibit a great tendency to undergo sclerotic change and to result in regurgitation. Neither of these events occurred in the aorta of the patient alluded to. The only published case bearing any resemblance to the above that I have been able to lay my hands upon is one reported by Lawrence Humphry in Allbutt's "System of Medicine," vol. v., p. 707—viz., a patient under the care of Dr. Greenfield in whom the heart was enlarged, especially the right ventricle, the two auricles communicated freely, the septum between the ventricles was complete, the left ventricle was hypertrophied and dilated, and the aortic valve consisted of two cusps, while the orifice itself was narrowed.

Congenital abnormalities of the heart raise many important questions to which answers cannot always be returned. Two circumstances stand out prominently in ante-natal pathology: one is that malformations of development can be produced experimentally in the embryo chick by shaking the egg, varnishing its surface, or by injecting toxins within the shell; and the other is that when the mammalian embryo is interfered with during the very early days of development the result is an abnormality, but if the experiment is made later and nearer term it is much more likely to result in disease; in other words, when a maternal malady occurs shortly

after the commencement of pregnancy it is apt to cause a malformation of the fœtus, if later intrauterine disease. It depends upon the stage of development the embryo has reached and the manner in which impressions are made upon it as to whether the result is an incomplete inter-ventricular or inter-auricular septum or whether the evolution of the large arterial trunks that rise from the aortic bulb is interfered with. The septum between the ventricles grows up as early as the fourth week.

It used to be taught that the placenta is a barrier to the passage of poisons from the mother to the fœtus. Porak showed that this did not apply to some of the metallic poisons and in my own experiments of feeding pregnant animals with white lead not only did the fœtuses die in utero, but in their liver was found lead on chemical analysis. It is thus, too, with poisons of a more subtle nature. The distinguished French obstetrician Mauriceau was born with the marks of small-pox upon his body and mothers are known to have transmitted the virus to their children in utero without they themselves exhibiting the disease. Maternal rheumatic fever may be followed by fœtal endocarditis. To ante-natal endocarditis must be attributed some congenital defects of valves, such, for example, as when they are found glued together in infants who have died shortly after birth. As it is the right side of the heart that has the greater amount of work to do in the fœtus, judging from its thicker walls, so it is therein we look for, and where we usually find, evidence of the consequences of ante-natal endocarditis.

Some congenital defects are more serious than others. It is impossible for the fœtus to live outside the uterus with some of them. Free communication between the auricles or between the ventricles is not necessarily attended by danger to life, for the circulation is still capable of being carried on and considerable length of years may be reached without any symptoms at all. Cyanosis even may not be present. It is with congenital abnormality of the heart as with diseased hearts—the balance of the circulation has to be broken before symptoms arise. In morbus cæruleus in addition to cyanosis and clubbing of the fingers epistaxis is frequent. Gibson of Edinburgh has shown that the blood itself is altered; its specific gravity is often as high as 1070, its hæmoglobin may reach 160 per cent., and the number of red corpuscles may rise to 9,000,000 per cubic millimetre, nearly double the ordinary number met with in health. Children thus affected bear cold badly. They cannot get sufficient oxygen into their blood and consequently their body temperature is low. Not only are they cold-blooded, they are apathetic and lethargic and are with difficulty educated. Where a patent foramen ovale persists there may be no symptoms and no physical signs, but should the inter-ventricular septum be defective the circulation is apt to be impeded, for blood is thrown with considerable force into the right ventricle and distends this chamber and as a consequence there is often dyspnœa on exertion. The pathology of cyanosis is not yet quite clear. It is maintained that in congenital heart disease cyanosis is due to an intermixture of the two kinds of blood, arterial and venous, or to extensive venous congestion, and yet sometimes very imperfectly closed inter-ventricular septa are found on post-mortem examination without there having been cyanosis during life except in particular circumstances. It is a question of aeration. There is a difficulty of getting oxygen into the blood. This liquid exhibits its original fœtal characters of retaining in its hæmoglobin excess of carbonic acid. The cyanosis, it seems to me, depends rather upon the physical and chemical constitution of the blood itself than upon defective circulation or upon admixture of arterial and venous currents, for although hæmoglobin is hæmoglobin under all circumstances yet in congenital cyanosis it never becomes the typical oxy-hæmoglobin that gives the bright red hue to actual blood. As the cyanosis is most marked in those cases of congenital heart disease where obstruction to the circulation existed long before birth it would seem as if the defect in the development of the cardiac apparatus had made itself felt upon other specially related portions of the mesoblast whereby the blood corpuscles at their inception have characters impressed upon them different to the normal.

Usually there is little or no difficulty in the diagnosis of congenital heart disease. Cyanosis at birth, and persisting, accompanied by clubbing of the finger ends and a tendency to epistaxis, suggests malformation of the heart. The difficulty consists rather in diagnosing the particular kind of malformation. The area of cardiac dulness is usually enlarged. On auscultation there is frequently heard a loud prolonged systolic murmur over not only the whole of the præcordial area but the back of the chest and pretty well over the whole of the trunk. There may be a thrill, systolic in time, felt over the upper part of the area of cardiac dulness. The second sound at the base is oftener accentuated than not. Very rarely a diastolic murmur is heard at the base. These remarks apply to stenosis of the pulmonary artery and imperfect inter-ventricular septum, to incomplete inter-auricular septum attended by complications, and to patent ductus arteriosus. Where the ductus arteriosus remains pervious the rumbling systolic murmur is located mostly at the second and third left intercostal cartilages.

A good deal depends upon the nature and the extent of the malformation as to how long life will be maintained. If the defect in the heart is great the infant will probably die shortly after birth, but a patent foramen ovale or a slight incompleteness of the inter-ventricular septum is quite consistent with the attainment of great age. Several of my own patients reached the age of 40 years and presented no symptoms and had no discomfort until an intercurrent malady, like bronchitis or some pulmonary malady, developed, which disturbed the balance of the circulation. In some instances individuals who were the subjects of congenital malformation of the heart have reached the age of 70 years. Tuberculous disease of the lung is met with, particularly when there is stenosis of the pulmonary artery.

Treatment can only be conducted on general lines. Warm clothing must be worn, all violent exercise and undue exertion should be avoided, the diet should be carefully attended to, and complications should be treated as they arise.

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# A Lecture
ON
# THE USES OF PARAFFIN IN PLASTIC SURGERY.

*Delivered at the Medical Graduates' College and Polyclinic on April 3rd, 1903,*

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GENTLEMEN,—It is now four years since Gersuny of Vienna invented the injection of paraffin for the cure of certain deformities and diseases. The whole subject cannot be got into one lecture; but I ask your leave to-day to say something first about the history of this method; next, about its practice; and finally, about its results.

## HISTORY.

The whole credit of the discovery of this method must be given to Gersuny and to him alone. It is true that Delanger of Tournai, also in 1899, did experiment on himself, putting a little paraffin under a scar on his arm; but the man who worked out the thing and made it known to our profession was Gersuny and nobody else. He had been making experiments, from a therapeutic point of view, to see what was the effect of the injection of paraffin under the skin of animals; and he had found that the paraffin, once set, remained as a hard nodule, giving no pain and undergoing no apparent change. In May, 1899, he was consulted by a young man who wished to serve in the army but could not hope to pass his medical examination because both his testicles had been removed for tuberculous disease. Gersuny, by the injection of paraffin into each half of the scrotum, produced the appearance of the testicles and the young man had no difficulty in passing his examination. Gersuny's second case was that of a girl who had undergone an operation for cleft palate. The operation had been successful, but the palate was not long enough to touch the back of the pharynx and she could not sound hard *g* or *k*. He made some slight improvement of her speech by the injection of paraffin into the palate, so that it was thickened and brought nearer to the posterior pharyngeal wall. His third case was of the same kind, his fourth case was a sunken cicatrix, and

his fifth case was a sunken nose. He published these five cases, with a long list of suggestions for other uses of paraffin; some of them were extravagant and have come to nothing, but among them was the suggestion that it might be possible to cure incontinence of fæces or incontinence of urine in the female, by raising hard nodules of paraffin under the mucous membrane of the rectum or of the bladder. And in 1900 he published his first case of this kind—a vesico-vaginal fistula which he narrowed and made water-tight with paraffin, after seven operations had been done to close it and had all of them failed. Then came a disaster, a case of pulmonary embolism. Pfannenstiel, on Nov. 23rd, 1900, injected 30 cubic centimetres of paraffin into a prolapse of the bladder with vesico-vaginal fistula. It does not appear that the patient was anæsthetised, but, what is still more strange, when he had injected this very large quantity of hot paraffin all at one time into the loose vascular tissues round the bladder, he let the patient get up and go home. No wonder that she was attacked by pulmonary embolism on her way to the railway station. She recovered and then they found that the injection had failed to close the fistula. This unhappy case brought the treatment into discredit for a time. But in February, 1901, Kapsammer published three cases of incontinence of urine in the female, from various causes, all of them successfully treated, and in June, Moskowicz, Gersuny's assistant at Vienna, published more than 30 cases treated by Gersuny and himself without any disaster and with a very good amount of success. Observe how wide was the range of these cases. Clefts and fistulæ were narrowed, cavities here and there were filled up, prolapses and herniæ were kept back, small-pox marks were taken out, sunken noses were remodelled, the falling in of the cheek after removal of the upper jaw was repaired, and a nerve divided for the relief of neuralgia was prevented from growing together again. This paper by Moskowicz is a wonderful instance of surgical zeal, almost of surgical extravagance, and in one or two of the cases there was more valour than discretion in the use of the paraffin. All the same, there is a long record of good and successful work, and it left not much more to be said.

That is the history of the introduction of Gersuny's discovery; and in this country the method is associated with the names of Walsham, Scanes Spicer, Ball, and Lake in London, Walker Downie in Glasgow, and Cathcart in Edinburgh. As for me, I published two cases last September in the *British Medical Journal* and to my amazement they were copied into the *Daily Mail* as a wonderful new discovery, and from the *Daily Mail* into all sorts of papers, including *Tit-Bits* and the *Woman's World*. The immediate result was that a great many cases of sunken nose came to me for treatment with paraffin; and I have already operated on 43 cases of sunken nose and three prolapses. But the whole invention of the method and its introduction into practice are Gersuny's work, and I ask you again to observe what a wide field of surgery he set himself to cover. If we could create fibrous tissue in the living body we should find a thousand uses for it and the use of paraffin is to build up in any accessible part of the body a structure that shall act like hard fibrous tissue. We may admit that the method has been carried too far in this or that case, but there remains a vast number of cases in which it has succeeded, though the usual operations of surgery had all failed or had been impracticable. It has been especially valuable in certain cases of fistula, in cases of prolapse, and in cases of sunken nose; and it is, for some of these tedious and miserable cases, a very happy discovery.

## PRACTICE.

So much for the history of this method. Now for the practice of it and the rules that are to be observed in the making of these injections. Let me say, once and for all, that it is not so easy as it sounds, and that nobody ought to begin remodelling noses and bolstering up prolapses till he has thoroughly rehearsed the whole performance and has learned all the tricks of the materials that he is working with. Again and again something goes wrong just at the last moment: a syringe leaks or cracks, or the paraffin sets in the needle, or escapes above the piston, or oozes out again at the point where the needle went in, or fails to do what it ought. Let us take the whole subject in order: first the paraffin, next the syringe, and next the method of making the injection.

The paraffin, of course, must be sterilised by boiling before it is put in bottles. Everybody is agreed about that, but then comes the question, Which is the best of the paraffins that are now in use? Is it Gersuny's which melts at 104° F., or Pfannenstiel's which melts at 115°, or Eckstein's which melts at 136°? This question has been argued at great length and with considerable vehemence and I will not trouble you with all the arguments. I am sure that Eckstein's paraffin is not the best. It is unmanageable, it is much too hot, and it has no special advantages. Gersuny's paraffin is easy to use; but I doubt whether it sets quite so quickly and so hard as it ought, and I doubt whether it would stay unchanged through a prolonged fever or a constant exposure to tropical sunshine. Moreover, there is some evidence, from experiments on animals, that it is safer to use a pure paraffin, not a mixture of paraffin with vaselin. So far as I can understand all these arguments about the different kinds of paraffin, I think that we had better use a paraffin that cannot be softened by any possible rise of the body-temperature and is not likely to burn the tissues. That is to say, it ought to have a melting-point somewhere between 108° and 115°. A point or two, this way or that, is no great matter. But where the paraffin has got to stand heavy and immediate pressure, as in the modelling of a sunken nose, there, I think, the higher melting-point is preferable. Where the strain and the pressure are less, as in the bolstering up of prolapsed mucous membrane, the lower melting-point will suffice.

Next, we must bear in mind that all paraffin shrinks when it sets. For example, the paraffin that is used for imbedding specimens, to cut sections, is always cupped and shrunk; and the same thing happens with paraffin injected under the skin or under the mucous membrane. Of course, the hardest paraffins shrink the most; but they all shrink more or less, except those that are too soft to be of general use. This natural shrinkage is inevitable; happily it comes to very little and in many cases cannot be detected.

Next, let us consider the syringe. Do we require a special syringe or can we manage with an ordinary antitoxin syringe? For the injection of paraffin into the loose submucous tissue of a prolapse an ordinary antitoxin syringe works well; but it does not work well, at least in my hands, for the remodelling of noses. In cases of prolapse there is no great pressure on the paraffin; but in nose cases there is a good deal of pressure. In cases of prolapse no harm is done by a slight excess of paraffin or by a slight inequality in the distribution of it; but in nose cases you have to be more accurate. Therefore the wiser plan is to have a special syringe. The right sort of syringe for these injections can be worked easily with one hand; it cannot inject an excess of paraffin with a jerk; it retains heat well; it does not leak; and it can be sterilised by boiling. To insure these advantages it is made with two rests for the fingers; it has a screw-nut running on its piston-rod; it is jacketed with a bit of drainage-tube; its needle is screwed on to it, not merely plugged on or attached by a bayonet-catch; there is a little leather washer (leather, not rubber) between the needle and the syringe; and the several parts of the syringe are screwed or welded together, not merely stuck together with cement. A strong, straight steel needle, one or one and a half inches long, is employed, such as is used for exploring the pleura, shortened and fitted with a screw-cap for attachment to the syringe. A very good syringe is sold by Mr. Rogers of 327, Oxford-street, W.; he also keeps the sterilised paraffins.

The method of injection is much the same whether a sunken nose is to be remodelled or a sinus is to have its walls brought into apposition or a prolapse is to be held up. You melt the paraffin by putting it in water that is well above its melting-point but not hot enough to crack the bottle. You sterilise your needles and cleanse your syringes and test them carefully. I say syringes because it is well to have two in case of accidents. Then you put your melted paraffin and your syringes in a water bath at a temperature five or six degrees above the melting-point of the paraffin. An ordinary steriliser makes a good water bath and you must secure your bottle of paraffin with a loop of wire or some such contrivance to keep it from toppling over. Everything being ready you draw up four or five cubic centimetres of paraffin; then you hold the syringe under water while you adjust the screw-nut and press out a drop or two of paraffin to make sure that it is all right; then you dip your needle for six or eight seconds into water that is boiling or just off the boil; and then you make the injection. But of course it is one thing to be working at a sunken nose and another thing to be working at

a prolapsed bowel. Let me speak first of nose cases and then of cases of prolapse. Practically my experience is limited to these two kinds of cases.

1. *The remodelling of noses.*—I have now done 43 of these cases. There have been no death, no embolism, no sloughing of the skin, and no wandering of paraffin into the eyelids, and the results are permanent and they are good. In some cases the improvement is really excellent, in some it is fairly good, and in some I have failed to do much good. In a very few I am sorry that I ever meddled with the case. In more than one case a good result ought to have been obtained but was not for want of more skill and better judgment. Some cases that seemed hopeless have done very well and some that looked very easy were found to be insuperably hard. Sometimes I have been pleased and the patient has been disappointed; at other times I have been disappointed but the patient has been pleased. It is anxious work and heavy responsibility altering the shape of people's noses and the more I see of these cases the more certain I am that you cannot manufacture perfect Greek noses out of nothing and that the surgeon must be content if he succeeds in making a nose that shall be merely unnoticeable. But do not think that it is a small matter to accomplish this much. You can enable a man to get work and to get a girl to marry him and to go through life without the incessant staring and chaffing that made him always unhappy and self-conscious. Remember especially that the man in the street takes it for granted that a sunken nose is proof positive of syphilis. I will not take up your time by repeating the miserable stories that some of these patients have told me—how they are out of work and badgered and ridiculed everywhere because they are so ugly. And it is even harder for the women. Of course, in some of these nose cases one may find something to laugh at; all the same it is a tragedy and the comic element, after all, is a part of the tragedy. So one has to take these cases seriously and in the treatment of them it is wisest not to promise too much but to say that you will do your best to improve them so far that they shall be able to go through life unnoticed and free from contempt and chaff.

Now let me say something first about the different kinds of sunken nose and then about the method of injecting the paraffin in these cases. I will not describe the causes of sunken nose. Doubtless the chief causes are injury, inherited syphilis, and acquired syphilis, but there remains a set of cases where the history is of this sort, that the patient had an abscess in the nose when he was a child and then the bridge of the nose fell in or never grew up. These cases are not, I think, syphilitic and they seem to show that the nasal bones in early life may be attacked by that acute inflammation which we call in the long bones acute osteomyelitis, or acute epiphysitis. There is also another set of cases where you get no history at all. The patient was "born like it"; he "never had a bridge to his nose"; he may have injured it, but every child knocks his nose some time or other. Anyhow, there are no history of acute destructive inflammation and no evidence of syphilis, only the nose has always been flat ever since the patient was a baby. These cases seem to point to a real arrest of development either from some slight injury or from some transmitted influence of which we know nothing.

There are two principal forms of sunken nose. In one there is no bridge to the nose, the nasal bones are flat, and the whole nose is ape-like—what the Germans call a "saddle nose"; in the other the bridge of the nose is intact but the soft tissues between the bridge and the tip are sunken as though a bite had been taken out of the nose just below the bridge. Let us call the first form the bridgeless nose and the second form the indented nose. And I wish here to say that I have lately seen two cases of this indented nose, in one of which the deformity seems to have followed the ordinary operation for adenoids; in the other it followed the application of perchloride of iron to the inside of the nose to stop bleeding after an operation on the inferior turbinates. I only tell you what I was told and I cannot understand how the removal of adenoids could cause indentation of the nose; but in the second case it seems certain that the perchloride of iron had burned a hole through the septum nasi and had brought about a very ugly sinking-in of the lower part of the nose. This case where the septum was perforated leads me to speak of perforations of the septum in their relation to the use of paraffin. A small perforation, or even a perforation as big as a sixpence, makes no difference to the success of the injection. Of course, there are cases of old syphilitic necrosis with a large hole in the hard palate and all the inside of the nose wrecked and destroyed and the nose all shrunken and crumpled up where you cannot get a good result. I will speak of these cases in a minute or two, but the point which I wish to make here is that a simple perforation of the septum, even a large one, does not in any way interfere with the remodelling of the outside of the nose. So long as you can get your needle between the mucous membrane inside and the skin outside you may improve the looks of the patient. Only the skin must be loose, not cicatricial. That is the one thing more important than everything else. What is the condition of the skin? It matters little whether you are dealing with a bridgeless nose or with an indented nose; and sometimes the cases that look the worst do the best. It all depends on the state of the skin. If it is fairly loose and soft and healthy, if you can pick it up between your finger and your thumb, then you can be sure of doing good. Try raising the skin between your fingers, drawing it forward into position, and you will see in a moment whether your injection will be successful, for if you can raise the skin then the paraffin can raise the skin and keep it raised. But if the skin is tight and hide-bound and rigidly contracted, as it is in elderly people whose noses have been sunken for nearly half a century, or, still worse, if it is cicatricial and immoveably fastened by adhesions to the deeper tissues, then you will never make that patient good-looking and you are in danger of failure and great disappointment.

The most favourable of all cases are those in which there are an abundance of loose healthy skin and a fair length of face between the forehead and the mouth and a well-shaped and refined tip to the nose. The most unfavourable cases are those where the nose is shrunken, shrivelled, and cicatricial and, as it were, crumpled up by old syphilitic necrosis. Between these two extremes there are all sorts of cases: some where the nasal arch is splayed out on either side of the face, making an unsightly ridge under each eye; some where the nose is not only sunken but also crooked; some where the tip of the nose is wide and clumsy and out of proportion to the rest of the face; and some where the face is so short and square that there is not much room to work in. You may find it necessary to straighten the nose or to do some plastic operation before you make use of the paraffin, or you may have to inject the paraffin not once but twice or even three times. And you must not expect that you can work miracles. It is better to do too little than to do too much; it is better to set yourselves to make not perfect noses but unnoticeable noses. Be content if you can raise a decent-looking bridge or if you can *almost* obliterate an ugly indentation below the bridge.

I come now to the method of injecting the paraffin in these nose cases. Prepare everything very carefully and even then expect that something will go wrong at the last moment. In most cases I insert the needle low down, just above the tip of the nose, in or near the middle line, and inject upwards; for I feel sure that I cannot then wound the transverse nasal vein, nor can the paraffin run into the tip of the nose. It is a good plan to prick the skin first with a fine surgical needle set in a holder; this enables you to introduce the paraffin-needle gently and accurately. It is also a good plan just before you make the injection to dip your needle for six or eight seconds into water that is boiling or just off the boil as this prevents the paraffin from setting in the needle. The injection must be made rather rapidly, say, at the rate of one cubic centimetre every 8 or 10 seconds, so that you may get all your paraffin soft at the same time and may mould it altogether. How much paraffin does it take to raise a sunken nose? I have said elsewhere from 8 to 10 cubic centimetres. This is too much. I do not deny that some noses, even with this quantity, still remain somewhat sunken. The paraffin will not all run in and some of it is wasted and that which does run in does not produce the desired effect. These are the unfavourable cases where the skin is shrunken, hide-bound, or cicatricial, but in a favourable case where the skin is loose and healthy you may raise it satisfactorily with two or three cubic centimetres. While you inject the paraffin your assistant presses his fingers and thumbs hard and tight over the forehead, the eyebrows, the inner angles of the orbits, and the sides of the nose, keeping out the paraffin by hard pressure from these forbidden regions. You make the injection, you wait a few seconds to let the puncture become sealed, you withdraw the

syringe and put it back in the water bath, then you take the nose and mould it vigorously while your assistant lets cold water trickle over it. Do not be too gentle over the moulding; squeeze and work the nose this way and that, and do not leave off for a good 10 or 15 minutes, till everything feels absolutely rigid. Then lay a mask of cold wet lint over the face and change it frequently. A few days later, if you want to add a little more paraffin, you can do it under cocaine only, but do not attempt it unless the skin be fairly loose or you will do more harm than good. If by mischance a small quantity of paraffin has run astray and has set where it ought not, and remains as a little nodule under the skin you can dissect it out like a little sebaceous cyst. I had to do this in one of my cases and it was easily done; but it would not be so easy if this mischance were to happen in the eyelid. In one of my cases, and in one only, a small abscess formed nearly a fortnight after the treatment; it looked very bad at the time but the final result is very good. In three cases the line of puncture of the needle broke down, but this is not a serious disaster. In all my 43 cases I have had no serious disaster, no sloughing or embolism, or any terrible thing to record. Only I have failed in a large number of cases to make the nose handsome and in a very few I have done no good at all. No two cases are alike. In one or two I gained something by freeing adherent points of skin with a sort of tenotomy needle; in one I gained something by inserting the paraffin needle into the nostril and making the injection from within outward. But there are cases where you cannot accomplish a good result, do what you will. You cannot raise the skin of the nose unless the skin is there to be raised and is loose enough to rise.

2. *The holding up of prolapses.*—Give me a few minutes more in which to speak of this use of paraffin. I have had only three cases, but the results were so good that the method certainly deserves consideration. My patients were all over 60 years old; one had prolapse of the bowel after excision of the rectum for cancer, one had prolapse of the bowel of 22 years' duration, and one had suffered for 28 years from prolapse of the uterus. I need not say what an amount of misery these three old people represent. And, to my amazement, they have all of them been cured. It is too soon to be sure that they will not need another injection later; but, for the present, there they are, wholly free from what had seemed incurable troubles. The paraffin, in these cases, must be injected immediately under the mucous membrane of the prolapse, so as to raise and to thicken and to stiffen it and to narrow the passage through which the prolapse comes down. With a prolapse of the bowel I think it is a good plan to take a fold of the prolapse between one's finger and thumb, and to endeavour to make two or three well-defined round masses or hummocks of paraffin which shall form a sort of valve or partial stricture just inside the anus. In a bad case you may have to inject the paraffin at diverse levels and for some distance above the anus. Of course, you do not dilate the anal opening; it is over-dilated already. Indeed, in one of my cases I combined with the injection of paraffin Mayo Robson's incision and deep suture to narrow the anal ring. Having injected the paraffin to the best of your judgment, so as to thicken and to stiffen and partly to occlude the lower two inches of the bowel, and, as it were, to produce the feel of a hard smooth growth involving half or two-thirds of its circumference and reducing its calibre, you put in a morphia suppository and keep the bowel up with a pad of wool and a T-bandage and treat the case as you would treat a case of hæmorrhoids after operation. Of course, a bad prolapse with great dilatation of the anus may require a considerable quantity of paraffin—say, three-quarters of an ounce or a whole ounce—and, in addition to the injection, Mayo Robson's incision. And, of course, you keep your paraffin away from the bladder and ureters and put it mostly under the posterior and lateral folds of the everted mucous membrane.

With a prolapse of the uterus I think that one ought not to inject the paraffin if the patient can be made quite comfortable and content with a pessary, for there is, I suppose, a very slight risk of embolism. Perhaps this risk of wounding a vein could be met by a preliminary puncture with an ordinary needle at the point where the paraffin needle is to be inserted. The general procedure in prolapse of the uterus is much the same as in prolapse of the bowel, only, of course, it may need a larger quantity of paraffin; in my one case I used nearly two ounces. The injections should be kept away from the bladder and urethra, and during the injection into the posterior vaginal wall a finger should be kept up the rectum in order that it may not be wounded. The bulk of the paraffin should be put under the mucous membrane of the posterior vaginal wall and of the posterior part of the vaginal cervix and at the sides of the vagina. If there be an old rupture of the perineum it may need to be repaired. The success of my case astonished me, for I succeeded in making the vagina so narrow and so strong that the uterus remained high up and fixed, even during hard straining, and this in a woman over 70 years of age in whom the prolapse occurred if she only sneezed or turned over in bed. Of course, this method must not be used for women who may yet conceive and the vagina must not be so narrowed as to impede coition.

### RESULTS.

The results in the only kinds of cases of which I have had experience are certainly good. I confess that in a very small proportion of the nose cases they have not been favourable, but in all save these they have been good and many of them have been very good. The prolapse cases are few but they have given excellent results. Doubtless in this or that case of sunken nose it would have been better instead of injection or before injection to do one of the plastic operations that Mr. W. J. Walsham has lately described in THE LANCET,[1] but on the whole the use of these injections has answered thoroughly well; only, to raise a sunken nose you must, above all else, have skin that is loose enough to rise. As for cases of prolapse it seems difficult to overestimate the good that can be done by this method, only it is not so easy as it sounds.

## ABDOMINAL HYSTERECTOMY FOR MYOMA BY DOYEN'S PROCEDURES.

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IT is some years ago that Dr. Doyen described his method of complete abdominal hysterectomy. The structures are rapidly divided between clamp forceps, a posterior flap is cut downwards into the posterior vaginal fornix, then the cervix is seized and hauled up, and the tumour is gradually made to turn a sort of somersault over the pubes. This method has seemed to me specially well suited for the cases mentioned below. In several of them the diagnosis had not been reached with any degree of certainty, in one case at any rate an erroneous one had been made, and on opening the abdomen inflammatory complications much obscured the anatomical conditions. Nevertheless, removal was accomplished with very little hæmorrhage and without interfering with the bladder and ureters. In these cases, except in one, there was no difficulty in excluding pregnancy. As regards the removal of the uterus, none of the women could possibly have had a viable child, and the occurrence of pregnancy would have rendered their case much more dangerous still. Vaginal and partial abdominal operations were out of the question. The abdominal operation at present most commonly adopted appears to be that of cutting across the cervix uteri. To do this one has to work from the pelvic wall inwards towards the cervix and in doing so branches of the uterine artery may be torn across deep in the pelvis or the ureter pushed inwards and either included in the clamp or ligatures, or indeed divided. In cutting across the cervix there is only a small communication with the vagina by the cervical canal, but the wide communication consequent upon removal of the whole cervix is not a source of septic inflammation if the vagina has been rendered aseptic beforehand. Indeed, with the vagina rendered aseptic the wider communication between it and the subperitoneal wound may aid drainage, for otherwise blood and pus may be retained owing to the narrowness of the cervical canal. In the one pregnant case, where maceration of the fœtus had already commenced, complete removal with the membranes unbroken preserved the wound from any contamination. As an additional reason for removing the cervix there is, perhaps, in some cases, a chance of the remaining cervix becoming malignant. In none of the cases

[1] THE LANCET, April 4th, 1903, p. 957.

could one define the cervix from the tumour with any certainty until the vagina was opened from above.

*The operation.*—The preparation of the patient included the shaving of the pubes and the swabbing out of the vagina with perchloride of mercury through a speculum. The anæmic cases had a subcutaneous saline infusion during the operation. The abdomen was opened just below the umbilicus, the bladder being drawn up nearly to this point in one case. After a preliminary examination the patient was raised to about 30 degrees from the horizontal (Trendelenburg position) and the rest of the abdomen was well shut off. Then the broad ligament, including the tube near the tumour, or when the ovary was diseased the ovarian ligament, was divided between clamps on each side. The tumour having been lifted out of the pelvis and drawn forwards as much as possible, a cut was made with blunt-topped scissors in the middle line behind the tumour through the peritoneum. Keeping close to the tumour, partly by cutting, partly by blunt separation, the posterior vaginal fornix was opened. Then the volsella seized the vaginal portion of the cervix and drew it upwards. Clamps were thereupon applied to the vaginal fornix laterally, then anteriorly, and after cutting it away the cervix could be drawn further upwards and the finger could commence to separate the bladder from the tumour by working from below upwards. The separation of the bladder seems so much more easily done in this way than from above downwards. Having reached this stage, on each side the base of the broad ligament forms a tense band reaching upwards to the tumour which includes the stretched-out uterine artery and its branches, upon which can now be placed clamps with a certainty of securing the vessels. When lobulated myomatous masses extended into the broad ligaments they were now drawn away with the main tumour, no force being required to shell them out. The ureters did not come into view at all, remaining outside the area of operation and being pushed downwards with the bladder. The volsella holding the cervix being continually drawn upon the tumour became gradually inverted over the pubes until there remained to be cut across the reflection of the peritoneum from the bladder on to the anterior aspect of the tumour. Now followed the application of ligatures over the numerous clamps and a strip of iodoform gauze was passed downwards through the vagina until it could be seized at the vulva, the upper end of the strip lying in the subperitoneal wound just above the cut edges of the vagina. Finally, the cut edges of the peritoneum were sutured together across the pelvis in the line of the excised uterus and broad ligaments. The urine was drawn off from the bladder and after two or three days the strip of gauze was removed and not replaced. In one or two cases the bladder and vagina were also irrigated for some days.

CASE 1.—The patient was under the care of Dr. W. R. Pollock who transferred her to me. She was a married woman, aged 48 years, who had never been pregnant. Menstruation had been regular from the age of 13 years until a year previously, when it became irregular. The penultimate period occurred six weeks previously, after an interval of three months, and lasted nine days, and the last period occurred a week previously, lasting four days. About three months previously the patient noted an enlargement of the abdomen, which continued, and micturition became frequent and painful, both by day and by night. The abdomen presented a central rounded elastic tumour corresponding to that of a sixth months pregnancy, with a lobule on the right side. The whole cavity of the pelvis appeared to be filled by a tumour. The os presented downwards and forwards; in front the finger could be passed up behind the symphysis. The tumour in Douglas's pouch felt hard and knobby. After opening the abdomen the omentum was found to be adherent to the tumour and was separated. A bluish-walled cyst next came into view and this proved to be a right-sided ovarian cyst which was tapped. It was then difficult to define the tubes except as swollen masses buried in adhesions. The right ovarian ligament was divided between clamps on the left side of the broad ligament, leaving *in situ* the left ovary and part of the tube. Then the uterus was removed. It was much enlarged by intramural fibroids and subperitoneal fibroids had extended laterally outwards into the broad ligaments. The cyst was a multilocular ovarian cyst with intracystic growths and highly vascular intercystic tissue. The patient recovered without incident except for a little discharge from the lower end of the abdominal wound.

CASE 2.—The patient, aged 46 years, was admitted to the Westminster Hospital and was transferred to me by Dr. Pollock. She was a married woman who had never been pregnant. She had menstruated regularly from the age of 16 years until three months previously, the quantity always being excessive. She first noticed a fulness of the abdomen, causing her to become short of breath, also pain in the left iliac region and bearing-down pain. For three weeks she had had painful micturition. The urine was small in amount, dark-green, and offensive. Shortly before admission she had a severe attack of metrorrhagia. On admission she was passing urine frequently, about one ounce at a time. The bladder was found to be greatly distended, containing two and a half pints of foul urine with much mucus and pus. The pelvis was filled by a firmly fixed hard tumour and the cervix could not be distinguished. On opening the abdomen a globular tumour about four inches in diameter was found wedged into the pelvis, with the bladder in front and above. Both ovaries were normal and were left *in situ* by dividing the broad ligaments. The tumour could not be distinguished from the cervix uteri until after removal, when the latter was found at the lower pole of the tumour. The bladder was densely adherent and was only separated from below upwards by using great care. After the operation the bladder was regularly washed out at first, there being a little blood in the urine, but she was able to leave the hospital wearing a belt three weeks after the operation.

CASE 3.—This patient was under the care of Dr. F. Norman. She was a married woman, aged 44 years, who, although long married, had never been pregnant before. She had been regular as regards menstruation until five months previously. She consulted Dr. Norman for an abdominal tumour and difficulty in passing urine and he diagnosed a retroverted gravid uterus with a large fibrous tumour above and in front of it. She was afterwards seen by an obstetric physician who said that she was not pregnant but had a fibrous tumour of the ovary. On opening the abdomen the bladder appeared containing a little urine. Behind this was a tumour of the size of a child's head buried in adhesions which was shelled out. This exposed a gravid uterus wedged into the pelvis corresponding in size to a four or five months pregnancy and the shelling out of the fibroid had left a large raw area involving deeply the uterine wall. Both ovaries were cystic and of the size of hens' eggs, the whole being surrounded by adhesions, but after dividing the ovarian ligaments I was able to remove the uterus. On laying it open a fœtus—beginning to macerate, of about four months—was found. The patient recovered rapidly. Afterwards she complained of climacteric symptoms but these ceased on treatment.

CASE 4.—The patient, aged 34 years, unmarried, had been seen by Dr. Dring, Dr. W. E. Passmore, and Dr. G. Norman. She had always had irregular menstruation and this had ceased for three months. An enlargement of the abdomen had been noted for a year and more recently attacks of abdominal pain, often very severe, until at last she was obliged to give up her work and go to bed. The abdomen was extremely painful and could not be handled much, but a tumour was obvious rising from the pelvis, filling the lower half of the abdomen and extending rather higher on the right side nearly, but not quite, up to the liver. It was dull to percussion and very tense, the umbilicus was bulging, and the flanks were resonant. Per rectum a tense swelling was felt. I thought that the tumour was an ovarian cyst complicated by serous peritonitis and anticipated extensive adhesions. On commencing the operation a little free fluid escaped and then the incision was extended to about eight inches. Not a single adhesion or sign of past peritonitis was noticed. Both ovaries were enlarged and cystic and were included in the removal. There was a small unaltered uterus buried in the lower part of the tumour, whilst the whole tumour formed much the shape of, but was larger than, a uterus at term and the total weight was 6½ pounds. Recovery ensued without incident and she returned to her work.

CASE 5.—An unmarried woman, aged 36 years, was admitted for a supposed iliac abscess following old-standing hip-joint disease. The patient, who had a strong tuberculous history on the mother's side, had, when aged 14 years, fallen on the hip; a swelling followed and for this and subsequent recurrences 17 operations had been done on the left hip. Healing finally occurred six years previously; since then the patient had had a flexed and adducted hip surrounded by scars but which allowed of walking two miles at a stretch. Her left knee had also been affected and

was ankylosed in extension. About six months before the patient was ill for eight weeks with a "chill," the temperature reaching 103° F. Five weeks before she again had fever with a temperature of 104° when a swelling was found for the first time in the left iliac fossa. She had been in bed since. Menstruation had always been regular; the last occasion was just before admission, with some pain. The patient's appearance corresponded to the fair type of scrofula and she was slightly jaundiced. Nothing abnormal was found in connexion with the heart, the lungs, or the urine. During the week she was under observation the temperature was always between 100° and 101° at night and not below 99° by day. The right and left iliac regions were very tender to palpation; in the left iliac region a smooth tense swelling could be detected with some intestines over it and the swelling appeared to be continuous with a bulging into the vulvar orifice and higher up was to be felt through the rectum. The right side was so tense that nothing could be made out. The operation was begun by an incision in the left linea semilunaris and the first thing reached was a hard mass continuous with the uterus; next an ovarian cyst was found of about the size of a goose's egg. The right ovary proved to be normal but the uterus, buried in peritoneal adhesions, was a mass of fibroids, subperitoneal, intramural, and submucous, and was removed with the left ovary and tube, whilst the right was left. Nothing was found connected with the hip and the operation wound healed without any complication. 15 days after the operation the patient had a sudden rigor with some jaundice and this occurred two days and again a week later, but afterwards these biliary symptoms disappeared. She was in good health when last heard of. This patient was a very perplexing case; it is possible that the febrile attacks beforehand may have been due to pelvic peritonitis, but they may also have been occasioned, as undoubtedly was the case after operation, by biliary inflammation.

CASE 6.—This patient had been under the care of Mr. Sydney Clark of Leeds, who advised operation some time ago, and then under the care of Dr. F. Norman. She was a married woman, aged 36 years, who had had two children, the last five years before, but no subsequent pregnancy. Dysmenorrhœa and menorrhagia became so severe that she was examined under an anæsthetic some months previously. She improved somewhat under rest, but during the last three months she had had repeated attacks of metrorrhagia, the blood rapidly distending the uterus until pains started and expelled the clot. Meanwhile she had become increasingly anæmic. Extra exertion brought on a severe attack of inflammation with pain, especially in the left iliac region which at one time almost threatened to suppurate. Per vaginam a hard globular mass filled the pelvis, whilst the cervix was displaced upwards and to the left side where it was fixed. On opening the abdomen the left ovary and broad ligament were found imbedded in an œdematous mass of recent fibrous tissue, the right ovary was unaltered, and the uterine tumour was fixed down in the pelvis. The broad ligaments were first divided and then the uterus and tumour were removed, after which the left ovary was carefully examined. As it seemed likely not to be harmful and could only have been dissected out with difficulty it was left *in situ*, for it was important to finish the operation. The patient was very anæmic, but the blood lost was so very small that she quickly recovered, and on leaving the hospital a month later was already of a better colour. There was a single intramural fibroid of the size of a cricket ball bulging out on the posterior aspect of the uterus; the uterine cavity was quite normal, both as to length and character of the mucous membrane; hence the metrorrhagia must have been the result of venous congestion without breach of surface.

CASE 7.—The patient was under the care of Dr. F. W. Rix. She was an unmarried woman, aged 38 years, who had for upwards of two years noticed an increasing enlargement of the abdomen owing to a tumour, the menstruation meanwhile remaining normal. For the last three months she had had obstinate constipation, at times chronic obstruction, with some pain and vomiting. On examination the abdomen was found to be enlarged by two masses, the lower occupying the hypogastrium and especially the right iliac region. The upper mass occupied the umbilical and adjacent portions of the right lumbar and hypochondriac regions. It was partially moveable, partly attached to the lower mass by a neck, had intestines in front of it, but was free from the liver. On opening the abdomen the bladder had to be pushed downwards and then the wound was sufficiently enlarged to deliver the upper pedunculated mass; next, as both ovaries were found to be sound, the broad ligaments were divided with the tubes, the posterior vaginal fornix was opened and the cervix was drawn up. As the rest of the vaginal attachment and the base of the broad ligaments were divided internal to clamps the lateral masses were easily withdrawn with the uterus from the broad ligaments into which they had grown. The whole mass consisted of pedunculated and subsessile subperitoneal myomas, weighing 2½ pounds, around a small uterus. The patient's recovery was entirely undisturbed.

CASE 8.—The patient was an unmarried woman, aged 34 years, who was admitted with an increasing abdominal tumour and very marked anæmia. The enlargement had been noted for several months. She had menstruated at regular intervals but had had prolonged periods and an excessive loss of blood with clots. There had been no special pain. An elastic lobulated swelling filled the pelvis and bulged into the vagina and rectum, whilst the cervix was high up in front, almost out of reach and inseparable from the tumour. An incision was made about six inches in length through a very thin abdominal wall; the uterine tumour presented whilst the bladder was well down behind the pubes. Both ovaries were cystic and enlarged to the size of hens' eggs but flattened. The uterus formed a greatly enlarged mass of separate intramural tumours of about the size of a double fist, in the middle of which was the uterine cavity, the cervix only being made out after removal. Nothing abnormal occurred for nine days after operation, although the patient was very weak and anæmic. The abdominal wall had been sutured by a row of kangaroo-tail tendons closing the peritoneum, another row united the recti, and the skin was sutured by silk. On the ninth day the skin sutures were removed and the wound, apparently uniting perfectly well, was dressed with gauze, wool, and a many-tailed bandage. The abdomen was quite flaccid and the bowels had been moved regularly from the second day. As it turned out I ought to have supported the abdominal wall with strapping in this instance, for about 12 hours later the patient, who had meanwhile been lying in bed without cough and had not had the bowels moved or had attempted to sit up, complained of pain in the chest and of a feeling that the intestines were coming out. Mr. G. L. Bunting, the house surgeon, found about two feet of intestine prolapsed through the upper part of the wound and already adherent to the dressings. He washed the intestines and breaking down more of the wound replaced the intestines and united the wall by deep interrupted sutures of fishing gut. No general peritonitis followed but a pelvic swelling, which was doubtless a subperitoneal hæmatocele from secondary hæmorrhage, developed a sinus formed in connexion with one of the sutures through which pus and broken-down blood were discharged. Consequently the patient had to be kept in hospital but meanwhile her general strength improved and the anæmia gradually diminished.

The three points in favour of the measures adopted are:—(1) the certainty of the procedure in spite of inflammatory complications or the main tumour obscuring details; (2) the certainty of securing the uterine artery at a good distance from its origin; and (3) the ease with which the bladder and ureters are pushed out of the way of the field of operation.

Brook-street, W.

## A CASE OF ACUTE BULLOUS ERUPTION AFFECTING A BUTCHER.

BY ARTHUR S. MORLEY, F.R.C.S. ENG., L.R.C.P. LOND.
AND
G. H. RANSOME, M.R.C.S. ENG., L.R.C.P. LOND.

THE following case, resembling as it does in many particulars a series of cases occurring in butchers which was described by Mr. George Pernet and Dr. W. Bulloch,[1] appears to us to be of some interest and importance.

The patient was a butcher, aged 26 years. With regard to his previous history, five years before he had "blood poisoning in the leg caused by bad drains." He had had no other illness worthy of note. He had never had any

[1] British Journal of Dermatology, May and June, 1896.

venereal disease. He was accustomed to eat large quantities of meat and had lately kept rather late hours. He did not take much alcohol. He frequently pricked his fingers in hanging up meat and "for some days" had had a suppurating wound on his left middle finger. For three days he had noticed a circinate scaly patch on the back of his left forearm and thinking that it was ringworm he had "blistered it with some stuff from the chemist's." He consulted us on Feb. 9th and the following are our notes of his case. The patient was a very plethoric young man. There was a small unhealthy-looking suppurating wound on the side of the left middle finger. On the back of the left forearm was a circinate scaly area of about the size of a shilling presenting several points of pus. On microscopical examination of some broken hairs removed from the patch no ringworm fungus could be discovered, but as the lesion was clinically indistinguishable from ringworm it was treated as such, being swabbed over with pure formalin and dressed with white precipitate ointment. The wound on the finger was also cleaned and dressed with the same ointment. A mixture containing perchloride of iron and sulphate of magnesium was also prescribed. On the 11th there were blisters all round the patch with slight dermatitis. There were much irritation and pricking. The wound on the finger still looked unhealthy. On the 12th the dermatitis was spreading. The vesicles had burst, leaving a raw surface. On the 14th there were inflammation and swelling of the whole of the back of the left forearm. Lead lotion was applied. On the 20th there was slight erythemato-dermatitis in the bend of the elbow, spreading up on to the arm. The forearm was rather less inflamed. On the 22nd there were inflammation of the entire skin of the forearm with much œdema, slightly raised punctate erythema up the arm and on the chest, and slight erythema also on the *right* wrist. Considerable pain was present. The temperature was normal. An internal angular splint and hot boric fomentations were applied to the left arm. On the 23rd the dermatitis was spreading over the trunk. The evening temperature was 99° F. The patient was ordered to bed. Five grains of calomel were given at once and 10 minims of antimonial wine three times a day were prescribed and the arm was placed in a continuous boric bath. On the 24th there was a general eruption over the whole body. On the right forearm the eruption resembled variola in the pustular stage; there were discrete, shotty pustules, surrounded by areolæ of intense brawny redness. On the left forearm the epidermis was abraded, leaving a raw bleeding surface, although the general inflammation was rather less. On the left arm was a papular eruption with a few small scattered bullæ. On the soles and palms there were a few pustules and bullæ. On the neck were strings of vesicles and bullæ, varying in size from that of a large pin's head to that of a threepenny-piece, along the course of the descending superficial cervical nerves. There were also a few vesicles on the scalp. There was intense general erythematous dermatitis, especially over the chest. None of the bullæ were larger than raisins and many were flat-topped. There was a good deal of fœtor noticeable, particularly about the left forearm. The patient's general condition remained good. His temperature was 99·4°. The urine was normal; no albumin or sugar was present. On consultation with Dr. W. M. Crowfoot of Beccles creolin lotion (2 to 12 ounces) with liquor calcis was applied. On the 26th there was slight improvement. The pustules were drying up. There was still much general dermatitis. The temperature was 98·6°. There were some sweating and great irritation at night which disturbed sleep. The creolin seemed to allay the irritation. On the 28th the patient was improving. The vesicles were drying up. There were, however, some semi-purulent bullæ on the dorsum of the hands and feet. The original wound on the finger was not yet healed. There was much coarse general desquamation. The patient complained of a general feeling of weakness and malaise. The temperature was subnormal. The tongue was clean. Some of the serum and pus from the bullæ and pustules was drawn off and sent to Dr. Bulloch for bacteriological investigation. The antimony was discontinued and an effervescing quinine mixture was substituted and daily sponging with oatmeal and water was ordered. On March 3rd the patient was improving steadily but the original wound on the finger still discharged. There were a few discharging blebs about the ankles. His general health was improving. On the 6th there were impetigo-like scabs about the legs and knees. A boil had formed over the sacrum. The wound on the finger had now completely healed. On the 10th the patient was still desquamating freely. There were a few crusts and scabs on each leg. Three boils had formed in the axillæ. The patient was now a good deal thinner and had lost his plethoric appearance. From this time he made an uninterrupted recovery and is now completely well again.

*Remarks.*—The case was one which presented a good deal of difficulty in diagnosis. At first we were inclined to attribute the dermatitis to the use of pure formalin to the patch on the forearm. But when the generalised eruption appeared on Feb. 24th this diagnosis had to be reconsidered as it is difficult to imagine how a purely local application could give rise to such a general and varied eruption. The true significance of the septic wound on the finger then occurred to us and the similarity of our case to those collected by Mr. Pernet and Dr. Bulloch[2] was apparent. The cases which they described resembled ours in that they all occurred in persons whose occupations brought them into contact with recently killed animals and in most of them there was some small septic wound or whitlow to act as the *fons et origo mali*. In Mr. Pernet's own case[3] the lesions, although much more severe, were very similar in character and distribution. There were, however, much more pyrexia and general disturbance, and the case ended fatally. Eight cases are described, all of which occurred in butchers. Of these four had septic wounds about the hands, and in the others no mention is made of this point. The incubation period in all the cases was long and the eruption, when it started, rapidly spread all over the body. All these cases occurred in adults between the ages of 17 and 33 years. In none does syphilis appear to have played a part.

Nine other cases are also collected; in six of these wounds had been sustained either from bites of animals or during occupations involving the handling of carcases. Six cases recovered and three ended fatally. In Mr. Pernet's own case Dr. Bulloch isolated and cultivated a "diplococcus resembling the gonococcus but somewhat larger." These organisms were found in the original wound in the unruptured bullæ and (post mortem) in the lungs. In the present case Dr. Bulloch very kindly undertook the examination of the serum and pus but failed to find any organisms resembling those which occurred in Mr. Pernet's case. A pure culture of staphylococcus pyogenes *albus* was obtained: as this is the organism most commonly found in the normal epidermis it cannot be regarded as likely to cause a specific as distinguished from a septic affection. It is to be regretted that we obtained the material for examination from the patient at such a late stage of the case, when improvement had already commenced, as the chance of isolating a specific organism was obviously then much diminished.

It will be noticed that the case differs from those described by Mr. Pernet in the mildness of the general symptoms and the rapid improvement, but the points of similarity, on the other hand, are sufficiently striking. Another somewhat similar skin affection has been described by Duhring under the name of "dermatitis herpetiformis," and at the discussion on this disease Dr. T. Colcott Fox stated that many of the cases started in lesions closely resembling those of herpes and tinea circinata,[4] and our case falls in line with this description. The same condition has also been described under the name of "*pemphigus en petites bulles*," and Dr. Crowfoot, who saw our case in consultation with us, said that it was similar to a case which had been under his care, in which this diagnosis had been made. It is a point of some interest that the patient in this case was a tanner who would of course come into contact with the hides of animals. It would be of value to know the occupations of the original patients whose condition was described by Duhring, as it seems a rather plausible suggestion that the diseases described by him and by Mr. Pernet and Dr. Bulloch are closely connected. In conclusion, we wish to express our gratitude to Dr. Bulloch, to Dr. Crowfoot, and to Mr. Pernet for the advice and assistance which they have given us in the investigation and treatment of this case.

[2] Ibid. [3] Ibid., vol. vii., 1895. [4] Ibid., 1898.

NATIONAL ASYLUM OF RIO DE JANEIRO FOR INSANITY.—Dr. Juliano Moreira, professor of psychiatry and neurology in the medical school of Bahia and co-editor of the *Gazeta Medica da Bahia*, has been appointed director of the National Asylum of Rio de Janeiro. This institution is to be enlarged shortly to 1000 beds, funds for the erection of the buildings being already available and the site purchased. Plans for a new epileptic ward are being prepared, while new children's wards have been already declared open.

# A CASE OF BULLET WOUND OF THE BRAIN, WITH PARTIAL MOTOR PARESIS AND HEMIANOPSIA.

## EXPERIMENTAL DETERMINATION OF THE LESION.

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THE case is that of a private soldier who was shot whilst asleep in his tent in South Africa. The shot was believed to come from Boer snipers. The patient stated that from the time he turned in on the eve of the night of the incident he remembered nothing until he regained consciousness of his position in the military hospital. He then noticed that he had lost the power of movement on his right side and that he could not see objects which were situated on that side. His history shows that he was struck on the head by a bullet at 2 A.M. on Dec. 10th, 1901, and that he remained unconscious until the following Christmas Eve.

### PHYSICAL EXAMINATION.

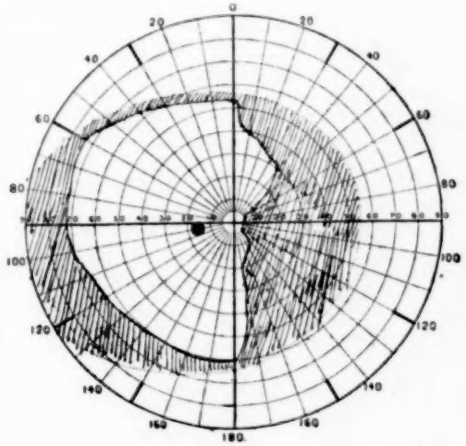
1. *The wounds.*—Examination of the head showed two wounds of the left side involving in each case the scalp and bones of the skull. Of these, one was situated at the anterior part of the parietal bone and the other in the neighbourhood of the external occipital protuberance. From the condition of the wounds there could be little doubt that the parietal wound was the site of entrance of the missile and that the occipital wound was the site of exit, for the wound of the parietal bone was a clean round hole, such as would be made by a good drill, whilst the occipital wound was a trifle larger but still fairly clean-cut hole. Both scalp wounds have healed perfectly, leaving little external trace of the injury; there is, however, some deficiency of the bone immediately beneath the scars and small depressions can be felt.

2. *The bullet.*—Whilst nothing definite could be ascertained from those who were at hand at the time of the incident the nature of the wounds leaves no doubt that it was a modern small-gauge hard-cased bullet travelling at a high velocity on a line coincident with its axis. The hard-cased bullets used by the Boers were Mauser (calibre ·275) in the vast majority of cases; there were some few other Mausers of Spanish calibre (·250), a fair number of Lee-Metford of British origin (·303), occasional Stehr of Austrian pattern (·350), and modifications of the Mauser bullet as regards its nickel sheath such as Jeffrey's sporting bullet with split sides and open noses. That the missile could not have been of the last-named order is evident, since the wounds, from the expanding nature of these bullets, would have been much more serious. Stehr rifles were not used in great numbers, though large stores of this ammunition were found in the magazine at Pretoria. It is therefore probable that the missile was either Mauser or Lee-Metford, though which of these cannot be determined, and it matters little for the differences of bullet (Mauser ·275, Lee-Metford ·303) and their effects are but small.

3. *Physical signs and visual fields.*—When the patient regained consciousness he was paralysed on the right side and could not see towards that side with either eye. In February, 1902, he was at the Connaught Hospital, Aldershot, where he came under the care of one of us (A. A. B.). At this time motor recovery was almost complete: the right arm alone remained weak but a fair range of movement was possible; the extensor reflexes were exaggerated. There was a slight degree of wasting of the muscles of the right limbs as compared with the left. In the facial region the right cheek was flatter than the left; there was weakness of the muscles of expression, especially of the corrugator supercilii, those about the root of the nose, and at the angle of the mouth. The tongue could be protruded perfectly and there was no involuntary deflection from the straight line; the uvula also acted normally. The patient did not at times speak plainly and said that he was occasionally at a loss for a word. Each letter of the alphabet could be pronounced clearly.

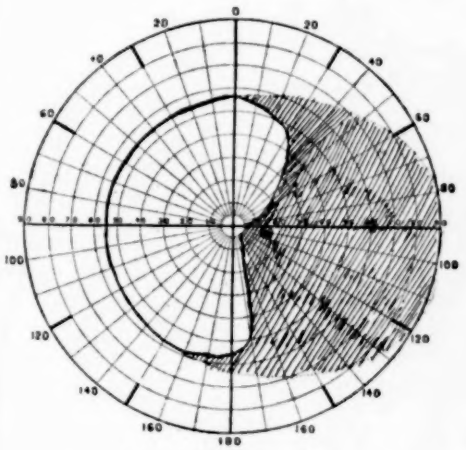
Visual acuity with each eye was full (Sn. $\frac{2}{3}$ and Jg. 1). On taking the visual fields with the perimeter it was found that the right half of each field was blind; the area within the 5° circle of central vision was intact in each eye (see Figs. 1 and 1A). In addition to the loss of the right

FIG. 1.



Perimeter chart of the left eye.

FIG. 1A.



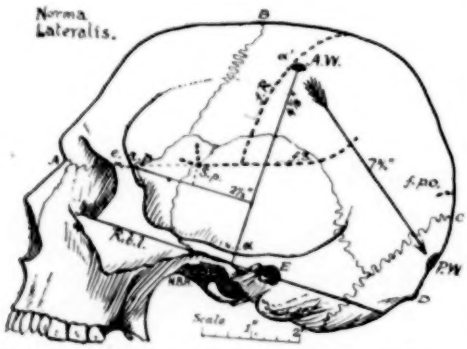
Perimeter chart of the right eye.

half of the field on the left side there was a rim of blindness in this eye starting from the blind right half and embracing the whole of the intact area of the left half, the rim being broadest laterally (see Fig. 1). By the ordinary method of taking the visual field with the head directly opposite the fixation point the corresponding half of the right field showed no such rim of blindness, the field being "full" to the normal limit; to ascertain the possibility of any defect beyond the limit bounded by the projection of the nose the field of the right eye was taken in another manner. The head was placed on the rest and rotated to the left through 45°; the left eye being covered the right was diverted outwards to obtain fixation upon the spot marking the pivot of the perimeter; the nasal field was again mapped out upon a chart in which

the limit of the field in this direction had already been marked by the like examination of another soldier (X) of the same age and similar mental capacity. It was found by this method that the periphery of the field of the patient towards the nasal side of the right eye was full, it coinciding very nearly with the control field of X. By ophthalmoscopic examination (on Feb. 15th, 1902) the retina was seen to be of a deeper red than usual, the veins were slightly engorged, and the arteries were somewhat indistinct and tortuous on the blind sides. The papillæ and maculæ were normal and the light reflexes were marked. Both pupils were of equal size and reacted equally well. Wernicke's hemiopic pupillary reaction was not present and there was no indication of "word-blindness" phenomena.

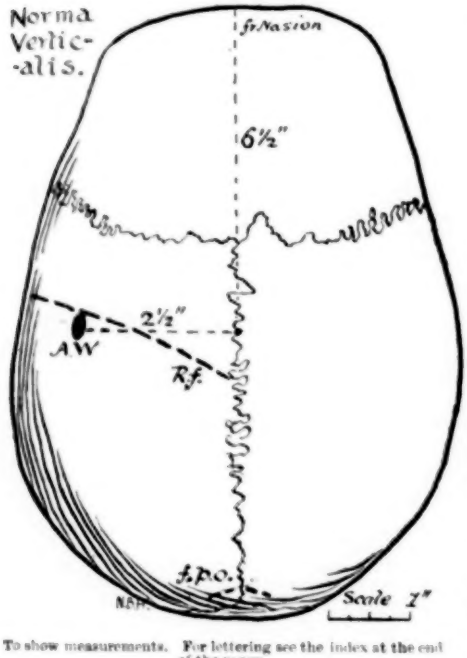
4. *Topography.*—Careful measurements of the sites of the wounds were made both in relation to Reid's base line and

FIG. 2.




To show relation of wounds to base and other lines on the skull. See also Figs. 3 and 4. For explanation of lettering see the index at the end of the paper.

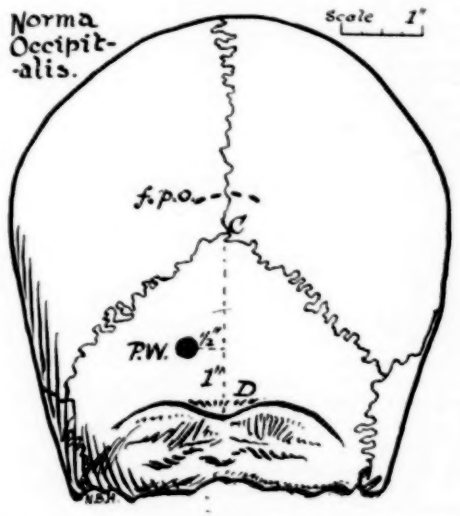
FIG. 3.




To show measurements. For lettering see the index at the end of the paper

to the prominent bony landmarks, and the position of these was compared with the positions of the cerebral convolutions and fissures of the superficies, as obtained by the most approved schemes of measurement. (Figs. 2, 3, and 4 show the head thus mapped out.)

FIG. 4.




To show measurements. For lettering see the index at the end of the paper.

(*a*) *General measurements.*—The general measurements were as follows: A from B, nasion to bregma (the bregmatic position was not certain), about 5 inches; from A to C nasion to lambda, 12 inches; from A to D, nasion to inion, 14¾ inches; from E to E, from right to left external auditory meatus over the vertex, 14¼ inches, and the distance which the vertex was situated from the nasion, 8 inches.

(*b*) *Parietal wound.*—A line (a a′) drawn perpendicularly to Reid's base line to meet the centre of the wound measured 4 inches; the continuation of this line (a a′) to the sagittal suture measured a further 2½ inches. This perpendicular (a a′) is situated 2½ inches from the external angular process measured parallel to the base line, and at the sagittal suture 6½ inches from the nasion.

(*c*) *Occipital wound.*—The centre of the wound is situated 1 inch from the most prominent part of the external occipital protuberance (or 2½ inches up from the base line) and half an inch to the left of the median longitudinal line as continued from the sagittal suture through the lambda to the external occipital process.

5. *Relation of wounds to cerebral cortex.*—The position of the principal fissures is given in dotted lines on the same figures; they were obtained in the manner described by Cunningham.[1] A skull of similar measurements to the head of the patient was marked out with these lines and the measurements for the wounds sites, and the whole was drawn with the aid of Broca's craniograph. It was found that the parietal wound was situated just behind the fissure of Rolando on a level with that part thereof which should be immediately posterior to the bifurcation of the superior frontal sulcus to form the precentral sulcus. The occipital wound fell in the occipital lobe about the level of the calcarine fissure.

6. *Experimental determination.*[2]—As a means of checking these results, preparing a graphic representation of the lesion, and to demonstrate the actual grey areas and white tracts penetrated by the bullet the lesion was made experimentally upon a recently deceased subject (a male, aged 48 years) the measurements of whose head, as determined by the usual craniometric methods, corresponded exactly with those of the head of the patient. The subject had been dead

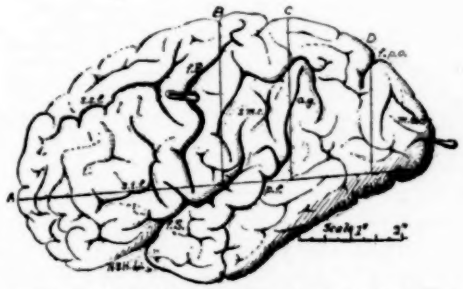
[1] D. Cunningham: Journal of Anatomy and Physiology, vol. xxiv., 1890.

[2] This method of demonstrating the lesions of bullet wounds of the brain was described by N. B. H. before the Pathological Society of London in July, 1902.

about ten hours when the skin of the neck was opened in the middle line and the common carotid arteries of each side were dissected out; into each of them in turn a cannula was inserted through which about two ounces of formalin (40 per cent.) were slowly injected until the formalin escaped from the nostrils. The vessels were ligatured and the body was left for five hours. The sites of the wounds were then found by the proper measurements and marked by holes drilled into the skull. The scalp was removed and the wound areas were trephined, a fine stilette was passed from hole to hole, and over this was passed a glass tube of the same size as a Mauser bullet. The skull-cap was then sawn off and the brain, which had become quite firm from the hardening agent, was removed and placed in a 5 per cent. solution of the same preservative. As regards the position of the trephine holes to the vessels on the inner surface of the skull, it was noted that the parietal wound had not cut into any large branch of the middle meningeal artery, it was well above the fork formed by its two large anterior and posterior branches, whilst the occipital hole had failed to injure either the superior longitudinal, the lateral, or torcular sinuses.

7. *The brain lesion.*—Fig. 5 is reduced from a scale drawing of the lateral surface of the left hemisphere; the

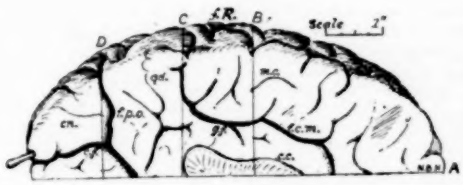
FIG. 5.



Lateral surface of the left hemisphere. A probe has been passed along the track of the lesion.

probe is lying in the track of the lesion. The arrangement of the convolutions is strikingly "average" and the brain might have supplied the model for an anatomical plate. The entrance wound is noted in the anterior edge of the ascending parietal convolution (post-central) opposite the upper part of the middle frontal convolution. The line of the lesion passes successively under the ascending parietal and supra-marginal convolutions, under the angular gyrus to the posterior extremity of the occipital lobe. Fig. 6 shows the mesial aspect of the hemisphere; the exit wound is noted at the

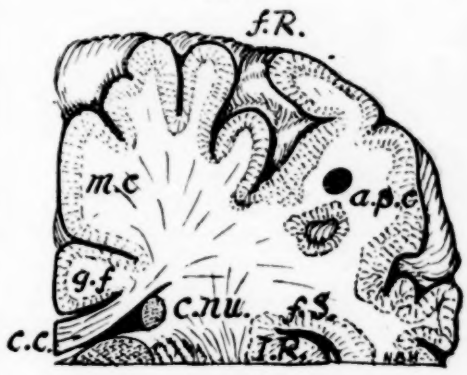
FIG. 6.



Mesial aspect of the hemisphere.

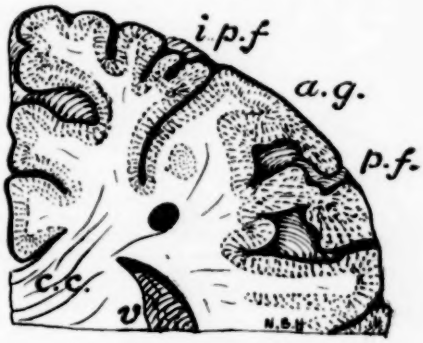
posterior inferior angle of the middle occipital convolution as it blends with the cuneus. Vertical sections of the hemisphere were made at B, C, and D (see Figs. 7, 8, and 9). In section B, which cuts through the ascending parietal convolution, the track of the lesion is so situated that it is distant only a few millimetres from the grey matter forming the greater part of this ascending parietal convolution and in such a manner that it must have completely cut off the communications with this area. In section C, which cuts through the angular gyrus, the lesion is deeper, but here, again, it cannot have failed to cut off communications with the whole of this important area. In section D, through the parieto-occipital fissure and the apex of the cuneus, the lesion again dominates the communications to the cuneus and occipital cortex through the occipito-thalamic radiation. Thus at all points the lesion has dominated the cortex behind the fissure of Rolando; it has either directly destroyed it in its passage or else the line of the lesion is so close to it that it could not fail to have been destroyed for functional purposes by the

FIG. 7.



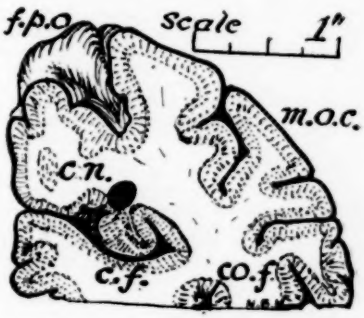

Section through hemisphere at B (Fig. 6).

FIG. 8.




Section through hemisphere at C (Fig. 6).

FIG. 9.




Section through hemisphere at D (Fig. 6).

disturbance set up by the rapid transit of a missile in such a line; further, through the greater part of its length the occipito-thalamic radiation of Gratioleti has been traversed by the lesion. A more completely destructive lesion short of excision could not well be devised.

That the passage of a small gauge bullet at a high velocity

cleanly through soft tissues will produce damage over and above the direct destruction incident to its passage we have seen many proofs in the intractable neuralgia in wounds of limbs, in cases where the nerves affected could not by any means have been directly involved. In some such cases the absence of any traceable morbid condition has been demonstrated by operative examination.[3] The production of this disability in structures distant from the actual lesion has been ascribed to the shock produced by the "expanding force" of the missile. If such effects are marked in the case of passage through the soft parts of a limb, composed of comparatively coarsely organised tissues, how much greater the effect of such a force acting upon the brain—first from the blow to the skull and, secondly, from the passage of the missile through a highly organised nerve mass inclosed within an unyielding envelope.

### CONCLUSIONS.

Whilst it would be unwise to base any elaborate deductions upon one set of observations there are certain points of interest which arise out of this case and the experimental demonstration thereof.

*The transient motor paresis.*—According to the localisation of the motor areas by Ferrier, Horsley, and Beevor the destruction of the ascending parietal convolution at the wound of entrance should have produced a serious and probably permanent paralysis. The man has early and almost completely recovered from the motor disability. This fits in with the more recent localisation of the motor areas in the anthropoid apes by Sherrington and Grünbaum[4] in which the area was bounded posteriorly by the Rolandic fissure and did not extend to the ascending parietal fissure or that part of it dipping into the fissure. The shock of the injury in the region of the ascending frontal convolution one would judge to be quite enough to account for the symptoms described. It is also noteworthy that the entrance wound is nearest the site of the arm area, in which limb there remains some slight weakness.

*The hemianopsia.*—The penetration of the occipito-thalamic radiation and the undermining of the angular gyrus and occipital lobes are so thorough that at first sight it would appear that no evidence could be gleaned from this case in the vexed question of the relation of psychic and perceptive visual centres to those cortical areas; also the general features of the fields of vision in the preservation of the central areas (complete within the 5° circle) and the retention of the portions supplied by the right side of the cortex are so well known as to call for no special comment. There is, however, one point of importance—the rim of blindness found along the left side of the left field, indicating the existence of a defect in the area held to be supplied by nerve fibres connected with the right cortex. How may this rim of blindness be accounted for? There is, of course, no evidence that the man's field was full in this direction prior to the injury, but an explanation obtained by a negation of this sort is hardly tenable. The matter is complicated by the fact that the blind rim corresponds to that portion of the right field normally absent—it is amblyopic on account of disuse caused by the obstructing nose; as has been stated no further diminution of this region could be discovered. The blind rim might be held to be a defect due to intraocular conditions following the injury, but there were neither ophthalmoscopic changes nor defective pupillary reaction to lend support to such a view. There remain two possible explanations. One is the hypothesis of Charcot[5] that there is a double decussation of the optic nerve and its connexions, one at the chiasma and another in the hemisphere; this scheme would supply the suggestion that the fibres derived from this blind rim were really connected with the left cortex and were destroyed within the left hemisphere after they had made their secondary crossing from the right. In the absence of any more direct and more feasible explanation the occurrence of this blind rim might perhaps be held to support Charcot's hypothesis. The second and more likely solution of the difficulty, and one which leads to a rather interesting deduction, is that the rim is the result of an injury to the right cortex. It has been noted how close to the middle line was the presumptive wound of exit, only half an inch to the left of that line. The right occipital cortex may well be held to be within the danger zone of this wound. In what way an injury occurred it is impossible to determine. Shock alone may have been of sufficient intensity permanently to incapacitate its cellular structure, mayhap the damage arose in some small hæmorrhage or in a disturbance of its venous circulation by a clot in one or other of the sinuses immediately contiguous to the wound. With an acceptance of this solution—damage to the immediately contiguous right occipital cortex—there follows the interesting deduction that the periphery of the visual field is connected with that part of the cortex situated in the posterior inferior margin of the middle occipital convolution as it blends with the mesial area known as the cuneus.

Whilst it would be presumption to base any elaborate conclusions on such evidence as this—that of a single case, and one in which an injury to the right cortex cannot be proved to exist, or existing its nature and cause cannot be determined—yet it may be noted that this deduction will very well harmonise with the generally accepted view that the central area of the visual field has its cortical connexion towards the apex of the cuneus, and support the view that the perceptive centre for vision is situated in the occipital and cuneate regions rather than in the more anterior angular gyrus. Of the psychic visual centre this case gives no information.

*Index to the figures.*—The scale is marked on each figure except 7 and 8 which are the same as 9. A., nasion; B., bregma; C., lambda; D., inion (external occipital protuberance); E., external auditory meatus; A.W., anterior wound; P.W., posterior wound; e.a.p., external angular process; S.p., Sylvian point; I.R., island of Reil; v., posterior horn of the lateral ventricle; c.c., corpus callosum; c.nu., tail of the caudate nucleus; co.f., collateral fissure; c.f., calcarine fissure; f.R., Rolandic fissure; f.S., Sylvian fissure; f.p.o., parieto-occipital fissure; f.c.m., calloso-marginal fissure; ip.f., interparietal fissure; p.f., parellel fissure; s.s.f., superior frontal sulcus; s.i.f., inferior frontal sulcus; m.o.c., middle occipital convolution; a.g., angular gyrus; g.f., gyrus fornicatus; sm.c., supra-marginal convolution; cn., cuneus; q.d., quadrate lobe; and m.c., marginal convolution.

[3] Clinton J. Dent: Brit. Med. Jour., February, 1900, p. 406.
[4] Sherrington and Grünbaum: Transactions of the Pathological Society of London, 1902, p. 130.
[5] McKendrick's Text-book of Physiology, 1889, vol. ii., Fig. 283, p. 560.

## CASE OF A MAN BLIND FROM CONGENITAL CATARACT WHO ACQUIRED SIGHT AFTER AN OPERATION WHEN HE WAS 30 YEARS OF AGE.

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A MAN, aged 30 years, blind from birth, was brought to the Glasgow Ophthalmic Institution on Feb. 24th, 1903. He was one of a family of seven, and although, as far as could be ascertained, there was no hereditary predisposition to blindness, one sister, as well as himself, was born blind and another (who died at the age of 35 years) lost her sight when she was two years old. The rest—a brother and three sisters—are said to have been able to see perfectly well. The sister who was born blind, now 33 years of age, was brought up in the Blind Asylum, but the patient himself was allowed to run about as he pleased, no attempt to educate him having ever been made. He became, however, so familiar with the country district (a few miles from Glasgow) in which he resided that he could go about without the slightest fear; and his hearing was so acute that he knew at once if there was anything unusual on a road along which he was walking, and thus he never had any difficulty in keeping himself out of danger. The "sense of obstacles" spoken of by psychologists was indeed developed to such a degree that he hardly ever came in contact with what might be in the way; he seemed to perceive the obstruction as he approached and was thereby enabled to avoid it. As he passed along a road he could tell a wall from a hedge by the sound of the air coming through the leaves and branches of the latter. He could easily go on an errand to any house in his native village, for the resonance of his footfall—quite different in sound when he was passing a building from what it was when he was opposite an open space—enabled him, perfectly familiar as he was with his surroundings, to count the houses as he passed, and thus to turn corners and finally to stop at the one which he wanted. In a strange place, however, he could never trust himself to go about without a guide, because his

sense of hearing conveyed nothing to him beyond the difference between passing buildings or open spaces, and number could not come in to render the auditory impressions definite. Experience taught him in the same manner to find his way about the garden in which he worked, and he learnt to pluck flowers, to arrange them in bunches, and to pack them in boxes for the market not only without the slightest difficulty but with very great accuracy. He distinguished different blossoms partly by touch but chiefly by smell, and by dint of asking questions he got at last to know so much about their form and colour that he could arrange them in a bouquet. He recognised the presence of strangers in the house chiefly by the sense of hearing—for example, he could discriminate persons whom he knew by the sound of their respiration, and he was at once cognisant of any breathing with which he was unfamiliar. Besides this, however, he said that if he came into the house when any strange person was there he experienced a sense of "fulness." He was unable to put this in clearer terms and the feeling may correspond to that ascribed by Wardrop in 1813 in his "History of James Mitchell, a Boy Born Blind and Deaf," to a highly developed sense of smell. Occasionally he worked in the harvest field and he could bind the corn and arrange the stooks as well as any of the other labourers. He said that he was even able to build the sheaves on a cart and naïvely added that although the load might not look "elegant" yet it always remained firm on the cart. At other times he assisted in trimming turnips with a large sharp knife and only on one occasion did he cut himself. In the winter he was employed by a farmer to feed cattle, and as he walked along the byre his sense of hearing guided him unerringly to the stalls where the cows stood, so that he had no difficulty whatever in carrying food to them and placing it in the troughs.

The eyes were small and deeply sunk and they moved continuously in the sockets and there was a very pronounced alternating convergent squint. The irides were natural, the pupils were active, and the intra-ocular tension was normal, but both lenses were completely cataractous. The patient was quite unable to distinguish objects, although he could tell day from night and could easily perceive a light and locate it accurately; and in this he resembled the boy Mitchell who could clearly discriminate light; but, unlike him, he does not appear to have had pleasure in its brightness, and as he seems to have had no perception of bright colours the opacity was probably more complete. As the cataract seemed to be the only obstacle to vision I resolved to operate and I extracted the lens from the right eye on March 11th and that from the left eye a week later. Prior to the former operation I made a preliminary iridectomy in order to test the vulnerability of the ocular tissues. Chloroform was administered as the patient was quite unable to control the movements of his eyes, and this ocular restlessness proved afterwards to be very troublesome, the constant motion under the dressings causing so much irritation that the bandage had to be removed and dark spectacles substituted. Both lenses were small and shrivelled and the nucleus of the right was calcareous. For about ten days after the operation on the left eye the patient appeared to be quite dazed and could not realise that he was seeing. The size of everything in the ward seemed to be very much exaggerated and on that account he had great difficulty in interpreting what he saw, but as he is inquisitive and has a keen desire for knowledge he took from the outset a most intelligent interest in his own case and asked numerous questions of his fellow patients. The first thing he actually perceived was the face of the house surgeon. He said that at first he did not know what it was that he saw, but that when Dr. Stewart asked him to look down the sense of hearing guided his eye straight to the point whence the sound came, and then, recalling what he knew from having felt his own face, he realised that this must be a mouth, and that he must be looking at a face. Once he properly understood what vision meant he made very rapid progress and his extraordinarily retentive memory enabled him to take full advantage of everything that he was told. He was quite ignorant of colour but learned to distinguish hues very quickly. The first tint that he saw was red. A red blanket lay across the foot of his bed. He asked what it was and was told and never afterwards did he have the slightest hesitation in discriminating red again. He was shown a narcissus and on being asked to describe it he immediately recognised the flower and knew from his old bouquet-making experience that it was white and yellow, but he now for the first time also became aware of the little red band in the centre and at once called attention to it. When he was shown a bunch of daffodils he recognised them by their smell and immediately said that they must be yellow. The colour that took him longest to master was green, but he can now name all ordinary tints readily and correctly. His difficulty with green is hard to explain unless it be that with green he has no smell-association such as he had with coloured flowers. Unlike Locke's blind man, who imagined that "scarlet was like the sound of a trumpet," he does not seem to connect any distinct ideas with particular colours except that he said that red gave him a feeling of pleasure and that the first time he saw yellow he became so sick that he thought he would vomit. The latter feeling, however, has never recurred.

He rapidly learned the letters of the alphabet and figures and he will soon be able to read and to reckon. From the very first he saw everything in its actual position, showing that the retinal inversion of a picture is interpreted psychically without any education.

One of the things that gave him peculiar pleasure was looking at the face of a watch which he had borrowed from a fellow patient. Within a day or two of his having got the loan of it he astonished me by announcing that he was able to tell the time. When I asked him how he had learned so quickly he explained that he did not understand the figures on the dial, but he had been told how to count the hours and that each space between the "black marks" meant five minutes. When asked to distinguish between a ball and a toy brick he looked at them attentively for a considerable time, his hands meanwhile moving nervously, as if he were trying to translate what he saw by comparing it with an imaginary tactile impression, and then he described both correctly. He explained that he was so much in the habit of handling objects that he had come to have a "notion in his mind" regarding the form of things. He could count accurately after he had looked at objects one by one and seemed to derive much help in his calculations by pointing with his finger. Here again he seems to translate touch into vision and to arrive at a perception of the whole through the perception of the individual parts. He cannot take things in at a glance. He does not see the passers-by on the opposite side of the street quickly. He looks most intently and moves his head backwards and forwards and from side to side as if trying to get a view of them all round before he can make up his mind what he is seeing; in a room, however, he can distinguish things much more quickly. With any complex outline, however, or group of outlines, he still has considerable difficulty, though pictures are no longer to him, as they were at first, mere masses of confused colour.

He was able to estimate size and distance more readily than might have been anticipated, although he said that he felt that if he were out of doors by himself he would be "wandered." From the time he got out of bed after the operation he could guide himself with ease through a doorway and walk about on the level, but he had considerable difficulty in ascending a stair, because the steps seemed so high that to begin with he raised his foot much farther than was necessary and without meaning to do so went up two steps at a time. Whenever he discovered his mistake he began to pay attention to the rise of each and he has now no difficulty in estimating their height. This, of course, was part of his difficulty of judging distance, though when he first looked out of a window on to the street and saw the pavement below he said that he felt that if he had a stick he should be able to touch it and thus he had not the feeling recorded of the boy operated upon by Cheselden in 1728 who thought that all objects he saw "touched his eyes," just as he had formerly got his impressions of things by pressure against the skin. Unlike him, also, the patient did not retain his faculty of moving easily about in the dark. Before the operation he could guide himself fearlessly through a ward without coming in contact with the beds or any other obstacle that might be in the way, but since he has been able to see he says that he has lost all that feeling of confidence and when his eyes are shut he is afraid to move and is impelled to open them to ascertain where he is going—so much so that he does not know what he would do if he again became blind.

The squint and ocular restlessness are less pronounced than they were, but the patient has still very little control over the movements of the eyes. When he is requested to look in any particular direction he is unable to cause the ocular muscles to do what he wishes, and the balls oscillate and one or other turns inwards to such an extent that a

portion of the cornea is hidden by the inner canthus. This want of control renders it very difficult to make a satisfactory ophthalmoscopic examination, but as far as can be made out the fundus oculi is normal; indeed, the functional activity of the optic nerves since the cataracts were removed is very remarkable and is in striking contrast to the purposeless muscular movements. Disuse has crippled the function of the latter, but seems to have had but little effect on the activity of the former. The eye is a receptive organ and the light that gained access to the retina through the opaque lens proved stimulus sufficient to maintain the optic nerve in health, while the want of visual power deprived the coördinating centre in the brain of all stimulus to develop and hence the ocular muscles are not trained to obey the dictates of the will.

I am indebted to Mr. W. G. MacDonald, one of my students, for bringing this case under my notice.

Glasgow.

## SOME OBSERVATIONS ON THE BLOOD GASES IN DIABETES.

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(*From the Physiological Laboratory, Guy's Hospital.*)

Minkowski and Stadelmann were, so far as we know, the founders in the early "eighties" of the view that in diabetic coma we have to deal with an acid intoxication. In the 20 years which have since elapsed this view has steadily gained ground.

It has been shown by Walter that a condition of unconsciousness with deep respirations can be produced in herbivora by the action of acids put into the stomach, and in these animals the alkalinity of the blood was diminished and its content of carbon dioxide was reduced from 32 to 2 or 3 volumes per cent. In carnivora similar results have been obtained though with less ease, owing to the chemical mechanism by which flesh-eaters are able to neutralise considerable quantities of acid by the production of ammonia. In man it is known that the alkalinity of the blood is diminished in diabetic coma and Kraus (confirming Minkowski) found the $CO_2$ content of the blood constantly low in 13 cases of diabetic coma. The average was about 15 volumes per cent., with a maximum of 19·8 and a minimum of 9·8 volumes per cent. In some of these cases titration of the blood was carried out and the alkalinity was found to be depressed.

We have made estimations of the carbon dioxide in the blood and its alkalinity in 23 samples of blood from 15 cases, eight being cases of diabetic coma, three of diabetes without coma, and four being from cases of œdema of the lung, pancreatic disease, pernicious anæmia, and ascites respectively. We have also estimated in eight cases the carbon dioxide in the urine and in six cases the capacity of the blood and urine to take up that gas. In two of the cases of diabetic coma the ammonia, the oxybutyric acid and acetone and the total nitrogen in the urine were also estimated daily, as well as the nitrogen in the food. Histological examinations of the pancreas have been made in five fatal cases.

The gases in the blood were estimated with Hill's blood pump, five or more cubic centimetres being taken for the analysis from a vein by means of an antitoxin syringe. In several cases duplicate estimations were also made with the apparatus of Barcroft and Haldane. The alkalinity of the blood was estimated by Wright's method and is expressed below in terms of normal alkali. The average alkalinity of healthy serum corresponds, according to Wright, to about $\frac{N}{30}$ NaOH. In our non-diabetic cases it has been rather higher—e.g., from $\frac{N}{25}$ to $\frac{N}{30}$.[1]

We are deeply indebted to the physicians of Guy's Hospital for permission to investigate their cases and especially to Dr. Newton Pitt under whose care were five of the patients.

An account in full of the observations, which commenced last October and are still in progress, will in course of time be published. The accompanying table gives some of the more important figures which have been obtained.

TABLE OF RESULTS.

| Case. | Remarks. | Date. | Carbon dioxide in the blood (volumes per cent.). | Alkalinity of the blood. | Total carbon dioxide in the urine (volumes per cent.). | Saturation capacity for carbon dioxide of the blood (volumes per cent.). | Saturation capacity for carbon dioxide of the urine (volumes per cent.). |
|---|---|---|---|---|---|---|---|
| 1 | Diabetic coma. | Oct. 14th, 1902. | 13·0 | $\frac{N}{70}$ | — | — | — |
| | After alkali administration. | Oct. 15th, 1902. | 16·8 | — | — | — | — |
| 2 | Diabetic coma. | Oct. 17th, 1902. | 24·0 | $\frac{N}{80}$ | — | — | — |
| 3 | Diabetic coma. | Dec. 2nd, 1902. | 14·8 | $\frac{N}{57}$ | — | — | — |
| | After alkali. | Dec. 3rd, 1902. | — | $\frac{N}{50}$ | — | 220 | — |
| | Later. | Dec. 3rd, 1902. | (a) 13·8<br>(b) 13·7 | $\frac{N}{45}$ | 5·1 | — | 82 |
| | Later. | — | — | $\frac{N}{45}$ | — | — | — |
| 4 | Diabetic coma. | Dec. 14th, 1902. | (a) 22·8<br>(b) 22·1 | $\frac{N}{60}$ | 5·0 | 301 | 91 |
| 5 | Diabetes. | Dec. 19th, 1902. | 33·4 | $\frac{N}{32}$ | 7·1 | 208 | 99 |
| | After alkali some days. | Feb. 19th, 1903. | 28·1 | $\frac{N}{30}$ | 8·9 | 238 | 93 |
| 6 | Diabetes. | Feb. 9th, 1903. | 24·2 | $\frac{N}{45}$ | — | — | — |
| 7 | Diabetic coma. | Feb. 9th, 1903. | 20·1 | $\frac{N}{90}$ | — | — | — |
| | After alkali administration | Feb. 9th, 1903. | — | $\frac{N}{50}$ | — | — | — |
| 8 | Dyspnœa. | Feb. 11th, 1903. | 25·5 | $\frac{N}{30}$ | — | — | — |
| | | Feb. 17th, 1903. | 43·0 | $\frac{N}{27}$ | 11·1 | — | — |
| | | Feb. 20th, 1903. | 38·8 | $\frac{N}{27}$ | 8·4 | 242 | — |
| 9 | Pancreatic disease. | Feb. 21st, 1903. | 56·5 | $\frac{N}{25}$ | — | — | 87·1 |
| 10 | Ascites. | Feb. 26th, 1903. | 48·5 | $\frac{N}{25}$ | 6·7 | 226 | 139 |
| 11 | Diabetic coma. | March 17th, 1903. | 14·1<br>12·2 | $\frac{N}{45}$ | — | — | — |
| | After alkali (arm bandaged for 4 minutes). | March 18th, 1903. | 39·0 | $\frac{N}{27}$ | — | — | — |
| 12 | Pernicious anæmia. | March 30th, 1903. | 43·2 | $\frac{N}{25}$ | 2·7<br>2·6 | — | — |
| 13 | Diabetic coma. | May 4th, 1903. | 25·8 | — | — | — | — |
| 14 | Diabetic coma. | May 4th, 1903. | 17·6 | $\frac{N}{40}$ | — | — | — |
| 15 | Diabetes. | May 6th, 1903. | 52·0 | $\frac{N}{25}$ | — | — | — |

[1] Some of our results were brought before the Medical Research Society on Feb. 18th last and they are referred to in THE LANCET of March 14th, p. 715, in a paper by Dr. Hale White.

It will be seen from the table that in all the cases of diabetic coma which had not been treated with alkali the quantity of carbon dioxide which could be extracted from the blood was half or less than half the normal. The usual figure given for healthy venous blood is from 40 to 50 volumes per cent. In the blood of the non-comatose patients there was less $CO_2$ than in normal blood but more than in coma. In this series the depression of the alkalinity of the blood and the diminution in the $CO_2$ content run approximately parallel except when sodium carbonate or bicarbonate had been given. In the diabetic cases diacetic acid and acetone were present in the urine. The quantity of ammonia is usually regarded as a rough guide to the amount of oxybutyric acid and diacetic acid in the urine, though this assumption is not now without its objections. In two cases direct estimations were made of the oxybutyric acid, acetone, and the ammonia. The proportion of the total nitrogen excreted as $NH_3$ was high, varying from 12 to 25 per cent. In one case this high proportion was diminished by giving alkali and in another it was not.

The theory has been advanced, and is current to some extent, that in diabetic coma the blood is unable owing to its diminished alkalinity to take up the normal amount of $CO_2$ and thus that the tissues are overcharged with this gas. We have made four observations upon the tension of $CO_2$ in the blood of two cases, one of diabetes and one of diabetic coma. We have not found the amount of the gas in the urine of diabetes to be above normal. Complicated physical and chemical points are involved in the interpretation of this result, but it certainly lends no support to the theory that the tissues, in contact with which this urine has been lying, are loaded with an excess of $CO_2$. We have also passed $CO_2$ through diabetic blood and urine. In each case the fluid was able to take up a large quantity of the gas and there appears to be no physical disability of the blood to take up more $CO_2$.

As against the view that the tissues are loaded with $CO_2$ more favour has been given on the continent to the conception that in diabetes, owing to the acids produced by the morbid metabolism, the cells of the body are (from deprivation of alkali) unable to carry on the usual oxidative processes and that in coma this inability to utilise oxygen becomes acute and the cells, including those of the respiratory centre, are in a state of oxygen starvation, although there is plenty of oxygen in the blood.

From the consideration of the above experiments and from others now in progress we think that in diabetic coma the respiratory symptoms are not entirely to be explained by the assumption of a chemical disability of the blood to combine with carbon dioxide.

## SURGICAL EMERGENCIES IN GENERAL PRACTICE.

BY GEORGE A. CLARKSON, F.R.C.S. ENG.

THE two following cases afford good examples of acute abdominal conditions requiring active surgical interference.

CASE 1.—The patient, a man, aged 49 years, was first seen at 2.30 P.M. on Feb. 1st, 1903. He was lying in bed, evidently in considerable pain and with an anxious expression. Asked what was the matter he immediately pointed to a hard semilunar swelling of the size of an orange immediately to the left of the umbilical cicatrix. The history was to the effect that he had not been well for some days, being troubled with aching in the limbs, cough, and wheezing. Not feeling any better that morning he had stayed in bed and about noon, during a violent fit of coughing, he felt a sudden pain and almost immediately noticed the swelling in question. Before this took place the bowels had acted naturally. He had not vomited at all, but he complained of increasing pain in the hernia, which he described as getting harder and harder. An operating table was improvised without delay in an adjoining room and within the space of an hour the operation was begun. The patient was a particularly bad subject for an anæsthetic as, in addition to some bronchial catarrh, his face was very congested from dilated venules, his arteries were thickened and rigid, and some years previously he had suffered from acute rheumatism with cardiac complications. Ether was the anæsthetic given. A free incision was made over the hernia and the sac was rapidly and freely opened. It contained much fluid under considerable tension and a loop of very congested small intestine tightly gripped at the neck of the sac which was quite small. The hernia was quite recent. There were no adhesions and no omental lining to the sac. The stricture was divided in an upward direction, the bowel was reduced, and the sac was stripped up to the ring, ligatured, and cut off. The opening in the rectus muscle was then closed with strong silk and the wound was sewn up. Except for some bronchitis, which was troublesome for the first two days, the patient made an uninterrupted recovery. The stitches were removed on the tenth day and at the end of a fortnight the patient was able to get up.

Two interesting points about the case are: (1) that four hours had intervened between the time of strangulation and the time that the sac was opened; and (2) that though the gut was very congested and very tightly gripped no vomiting had occurred.

CASE 2.—The patient was a well-nourished and healthy-looking boy, aged two years. For some two or three months he had had occasional attacks of abdominal pain believed to be due to flatulence. On the evening of April 2nd, 1903, he was seized with sudden pain in the abdomen which made him scream out and very shortly afterwards he passed a considerable amount of bright blood per rectum unmixed with mucus. When seen shortly after this had occurred the child was quite collapsed, the pulse was rapid, and there were evidently occasional paroxysms of pain. The abdomen was rather distended and rigid so that nothing pointing to the exact condition inside could be made out. The rectum contained a little bright blood and nothing abnormal could be felt in it. On the following morning the child was obviously worse, paroxysms of pain occurred about every quarter of an hour, the pulse was very rapid, and the temperature was subnormal. During the night vomiting had commenced and had continued at short intervals. Nothing further was disclosed by palpation of the abdomen or by rectal examination. The child being obviously very ill indeed an operation was advised. This was carried out in the afternoon under chloroform. When the abdominal walls were well relaxed under the influence of the anæsthetic a careful palpation revealed no evidence of intussusception or the presence of any swelling at all. The abdomen was opened below the umbilicus and the distended intestines were received into a warm sterilised towel. There was a little free fluid in the peritoneal cavity. On sweeping the hand under the liver a loop of small intestine was separated and brought out, which disclosed the site of the trouble. At the apex of the loop was a tuberculous ulcer which felt like a ring of cartilage let into the bowel. This had produced a local peritonitis and the loop, having become adherent somewhere under the liver, had produced an acute kink. The adhesions, which had been broken down by the hand in bringing the coil down from its original position, were very evident. There were a few large glands in the mesentery, one being of the size of a small walnut. The intestines were sponged over and returned and the abdominal walls were united in two layers with catgut and silkworm gut. The child made an uneventful recovery. The wound healed by first intention and the bowels, at first relieved by an enema, soon began to act without assistance. Careful feeding, with as much fresh air as possible, is being carried out, and as the next few months will be spent at the seaside there should be a reasonable chance of complete recovery.

Leicester.

## CESSATION OF RESPIRATION DURING ANÆSTHESIA; RECOVERY AFTER ONE AND A QUARTER HOURS.

BY DAVID LAMB, M.B., C.M. GLASG.,
ANÆSTHETIST TO THE VICTORIA INFIRMARY, GLASGOW.

ON July 3rd, 1902, a well-built man, aged 26 years, was operated upon by Mr. A. E. Maylard on account of acute inflammatory mischief in the left mastoid region. On this occasion chloroform was the anæsthetic employed and from an anæsthetic point of view the operation was completed without incident. On August 15th the patient was again brought to the anæsthetic room, on this occasion under the

care of Mr. J. Grant Andrew,[1] acting for Mr. Maylard, and A.C.E. mixture was given by means of a celluloid modification of Rendle's mask. There was little or no excitement during the induction of anæsthesia and the moment the corneal reflex disappeared the patient was removed to the theatre, transferred to the operating-table, and his head arranged in position for the surgeon. Immediately this was done it was observed that he was apparently "holding his breath," as though during these manipulations he had been allowed to become too lightly under. The lower jaw was pulled forward, the lips were rubbed, and then with a little difficulty on account of the firmly clenched teeth a gag was introduced and tongue forceps applied, but, contrary to expectation, the spasm which affected also the muscles of the neck continued and lividity became rather too evident. The pupils, however, were well contracted but not pinhole; the pulse was steady, full, regular, and certainly not less than 60 per minute; and the corneal reflex was absent. A few turns of artificial respiration were followed by the disappearance of the lividity and respiratory spasm, for the latter being substituted a condition of simple cessation of respiration without other urgent symptom. After about ten minutes of the usual restorative measures (lowering the head over the end of the table, artificial respiration, slapping the chest with cold wet towels, inhalations from a sponge saturated with ether, and administration of oxygen) suspicion began to arise that the condition was due not wholly to the anæsthetic but to some intracranial condition, and the propriety of at once trephining was discussed. There being a little difficulty in keeping the jaw and tongue in position to maintain a free air-way the patient was surcharged with oxygen and a condition analogous to physiological apnœa induced, during which tracheotomy was comfortably performed by Mr. Andrew. No result being produced by the stimulation caused by the direct inhalation of ether vapour and oxygen through the tracheotomy wound it was then decided to proceed with the examination of the temporo-sphenoidal lobe and cerebellum without further delay. Silvester's method of artificial respiration interfering considerably with the surgeon's movements the patient was again surcharged with oxygen by this method and then direct compression and relaxation of the chest (Howard) with continuous administration of oxygen were substituted, thereby greatly assisting the surgeon. Cardiac failure and lividity, however, tended to occur more readily when this method was adopted, and the operation had occasionally to be interrupted whilst Silvester's method was resumed for short periods. Strychnine, digitalin, and ether were injected hypodermically to assist the heart which was now showing a tendency to flag. The skull was trephined in two places and the temporo-sphenoidal lobe and cerebellum on the affected side were explored by Mr. Andrew, but unfortunately with a negative result. The only change noticed was the occurrence from five to ten minutes after the completion of the operation of slow lateral rolling movements of the eyeballs similar to those noted by Ferrier as resulting from cerebellar stimulation but also frequently observable during light anæsthesia apart from any head condition. Strong corneal reflex could occasionally be elicited but the pupils remained equal, firmly contracted and fixed, absolute unconsciousness continued, and respiration would not begin. Cardiac action failed considerably, the radial pulse being at times almost imperceptible. It is possible, indeed, that cardiac action at this period was maintained by the intrinsic cardiac ganglia, the higher centres being involved along with the respiratory centres in the medulla oblongata. So strongly had I been impressed by the probable intracranial source of the trouble that up to this time the employment of a battery had not been given a thought. An induction apparatus not being immediately available a 20-cell galvanic battery was obtained, the negative electrode (a small one) being applied to the neck over the region of the phrenic nerve and the positive to the lower intercostal spaces to try to influence the diaphragm. For a minute or two nothing occurred, the negative pole being in all probability inaccurately applied. At this stage, however, we seemed to hit the phrenic nerve and with each re-application of the electrode a distinct spasmodic inspiratory movement took place, accompanied by dilatation of the pupils and a facial grimace, the whole appearance suggesting the final gasps frequently observed immediately preceding death. The arms at the same time became rigid, interfering with the free performance of artificial respiration. After three or four induced inspirations spontaneous respiration began, the patient almost immediately becoming sufficiently conscious to attempt to resist the application of the dressings and the closure of the tracheotomy wound. On the next morning the patient's condition was fairly satisfactory, but 30 hours afterwards, without apparent cause, though after one or two minutes' warning, a similar respiratory spasm occurred, followed by a similar respiratory failure. Treatment, including the use of the faradic current, was maintained for two hours, when death occurred.

*Necropsy.*—At the post-mortem examination a small collection of pus surrounded by sloughing tissue was found at the anterior portion of the cerebellum.

Looked at from the point of view of the anæsthetist the following points of interest suggest themselves to me.

1. *The anæsthetic.*—Being informed by the nurse in attendance in the anæsthetic room that the patient was a "mastoid case," and as he was quite conscious and presented nothing to attract special attention, I was unaware that any suspicion had been entertained by the surgeon of the probable presence of an intracranial abscess. Otherwise I would have given chloroform in accordance with the advice of authorities on this subject. At the same time the A.C.E. mixture is in my experience in the great majority of cases associated with less excitement and holding of the breath during the period of induction of anæsthesia than is the case with chloroform even when slowly and carefully administered. On this occasion there were practically none of these objectionable effects produced and this, I think, would counteract so far as increased intracranial pressure was concerned any harmful effect caused by its mildly stimulating action on the pulse and respiration. That very little was required to turn the balance was demonstrated by the sequel, for which no distinct exciting cause could be found. On this occasion I understand that the patient, feeling some warning of impending trouble, called his nurse and that when the house surgeon who was immediately sent for saw him there was clearly a spasmodic closure of the upper air passages, evidenced by the presence of lividity and the forcing of air through the previously closed tracheotomy wound. The immediate re-opening of the latter was followed by breathing for a few minutes before the final cessation took place. This would seem to corroborate my opinion that in the first attack, though at first sight the patient seemed to be "coming out," he was not really so, but, as was indicated by the other guides, he was in the stage of light surgical anæsthesia. The respiratory spasm and the spasmodic closure of the jaws (masseteric spasm frequently observed in cerebellar cases) formed the introductory phenomena produced by the intracranial pressure. Whatever part the anæsthetic played in the production of the condition it alone certainly could not account for its maintenance. Possible alterations in the relations of the abscess the result of the somewhat free movement of the patient after he was anæsthetised may also have to be considered in deciding the exciting cause. The abscess from its anatomical position could not possibly exert any direct pressure on the vital centres.

2. *Oxygen* has in my experience proved itself a most valuable remedial agent in serious anæsthetic difficulties and clearly so in this case. Without it after the first half hour the circulation was so feeble and sluggish as even with satisfactorily performed artificial respiration to allow of the onset of dangerous lividity, whilst with Howard's method, so valuable to the surgeon, it was even more necessary.

3. *The recovery.*—In light of the negative result of the exploratory operation and previously to the post-mortem examination one could not but ascribe the credit of the recovery to the use of the battery. With the intermittent application of the electrode over the phrenic nerve not only was there a consequent diaphragmatic inspiration, but the clearly evident action of the ribs and facial grimace resembled more a complete inspiration or gasp, as if resulting as much from the general shock of the application as from the local action on the phrenic nerve. Unfortunately, in the fatal attack this did not occur, so that we must look for another element in the recovery. This I think was the diminished intracranial pressure caused by the gradual drainage of the cerebro-spinal fluid through the trephine openings. The closure of the latter seems to have allowed re-accumulation of the fluid, recurrence of the pressure, and

[1] Case of Cerebellar Abscess, by J. Grant Andrew, M.B. Glasg., Brit. Med. Jour., May 2nd, 1903.

a second attack during which their re-opening and tapping might have allowed once more a temporary recovery.

Somewhat similar cases, though mentioned by Macewen, Hewitt, and others, being comparatively rare, the total duration of the respiratory failure being exactly one and a quarter hours, I may be pardoned the above details; and this case is, I think, unique in that recovery, temporary at least, took place without the actual evacuation of the abscess. To what extent this happy result may be ascribed to the battery it is difficult to say, but it cannot be wholly dissociated from it, and faradism certainly now holds, in my estimation, a higher place as a remedial agent in anæsthetic difficulties than it had previously done as a result of my reading on the subject.

Glasgow.

## NOTE UPON THE USE OF PILOCARPINE IN THE TREATMENT OF PNEUMONIA.

BY E. CURTIN, M.D. R.U.I.

THE pharmacological action of pilocarpine is well known and its striking action as a diaphoretic has led to its use in many conditions where morbid fluid accumulations have to be removed from the system. It does not appear, however, that its therapeutic value has been tested in pneumonia save by few observers. Thus recently[1] Pelzl records his experiences in an Austrian military hospital where he gave 0·0125 gramme (equal to one-fifth of a grain in solution) of pilocarpine hydrochloride by the mouth with good results. In the same article several theories are given of the action of pilocarpine in cases of pneumonia. In the South African war during 1901–02 I made use of the drug in several cases under my care. The notes of some of these cases are given below. The administration was by means of hypodermic injections of one-tenth of a grain of pilocarpine nitrate in solution of tabloids of that strength. I might draw attention to the fact that the disease in coloured races (I speak especially of Kaffirs in these notes) exhibits some differences from that seen in Europeans—e.g., British troops serving in South Africa. In the latter there is more of the toxæmic character than in the former. The high mortality—no less than from 50 to 60 per cent.—in cases of pneumonia occurring in the coloured races of South Africa has been frequently remarked upon.

CASE 1.—A half-caste scout was admitted to hospital complaining of "stick in the side." The whole of his right lung was dull to percussion and his general symptoms pointed to a severe attack of pneumonia. Repeated cold baths failed to affect his temperature which registered 105·4 F. He passed a restless and delirious night and on the following morning, his temperature having risen to 106°, I gave a hypodermic injection of one-tenth of a grain of pilocarpine. Considerable sweating followed and although there was no immediate reduction in the temperature his general distress was much relieved. During the afternoon of that day and in the ensuing night he expectorated a large quantity of fluid bloody mucus and when I saw him on the morning of the third day of his illness his temperature was normal and his lung had almost completely cleared. Two days subsequently he left the hospital tent at his own request.

CASES 2 and 3.—Soon after this I had occasion to visit Upington where Dr. Phillips showed me two cases of pneumonia in half-castes. In the first case both lungs were affected and the air passages seemed choked with bronchial secretions which the patient had neither energy nor strength to expel by coughing. He appeared in such an agony of distress that Dr. Phillips and myself regarded his case as quite hopeless. The attack in the case of the other patient was one of average severity. Both cases were in the same ward and under similar conditions and were injected with one-tenth of a grain of pilocarpine. Their recoveries were rapid and satisfactory.

A transfer to No. 3 Stationary Hospital, De Aar, from Kenhardt, where there was a native ward equipped with competent attendants, afforded me an opportunity of further testing the value of the drug in pneumonia with the result of a decrease in the mortality in native cases of at least 50 per cent.

In the few cases in which I had an opportunity of applying this treatment to Europeans the results were not so satisfactory as in natives. This I attribute, as already stated, to the toxæmic symptoms which were such a marked feature in soldiers affected with pneumonia during active service in South Africa.

CASE 4.—A private, aged 41 years, with the usual soldier's history, was admitted to hospital suffering from pneumonia of the left lower lobe. The temperature on the morning of admission was 104° F., the pulse was 125, thready and compressible, and the respirations were 50, shallow, very painful, and accompanied by working of the nostrils. His appearance was one of great distress. On the second day after his admission his evening temperature was 103°, but his general symptoms continuing severe I gave one-tenth of a grain of pilocarpine hypodermically with the result of almost immediate arrest of pleuritic pain and relief of general distress. During the ensuing night he expectorated freely. The following morning his temperature had fallen to 100° and redux crepitations had replaced the tubular breathing of the previous day. From the fifth to the ninth day his temperature remained below 100° F. and in every respect he was making satisfactory progress. He then had a rigor which was followed by pneumonia of the right lower lobe. He was again injected with pilocarpine and after a prolonged convalescence returned to duty. The usual stimulating treatment was also employed.

CASE 5.—This patient was a private who was admitted in the evening. There was a patch of dulness of about the size of the palm of the hand over the lower anterior border of the right lung. The morning after admission his temperature registered 103·4° F. and in the evening slightly above 104°. His general symptoms were not severe and he was comparatively free from pain. At 2 P.M. on the second day after admission to hospital I injected one-tenth of a grain of pilocarpine which produced moderate perspiration but otherwise had no immediate marked effect. In the evening his temperature went up 1° to 104°. On the following morning it had fallen to normal, where it remained. He returned to duty on the fourteenth day after his admission and would have been fit sooner but for his indiscretion in having attended a concert.

CASE 6.—The patient, a private, was admitted suffering from pneumonia of the left base. On the following day acute delirium set in with symptoms of profound toxæmia. An injection of one-tenth of a grain temporarily relieved his breathing. On the evening of the third day his temperature, which from the first had been under 102° F., rose to 105°. The injection was repeated, with the result of a reduction to 103° but without relief to other symptoms, especially delirium which continued active until his death at midnight. Saline injections and oxygen were also used. Notable features in this case were little cough, scanty expectoration, comparatively low temperature until a few hours before death, and delirium.

CASE 7.—The patient, a private, was admitted complaining of cough and pain in his chest. His temperature was 102·4° F., the respirations were 30, and the pulse was 120. The lower lobe of the left lung was dull to percussion and the breathing was tubular. The right lower lobe was also dull. There was a short sharp cough, with scanty blood-stained expectoration. On the following day dulness on the left side extended to within three inches of the apex. The respirations and pulse were very frequent and the heart sounds were feeble. From this time cough and expectoration ceased and active delirium set in. On the third day after admission subcrepitant râles replaced the tubular breathing of the previous evening. Dyspnœa and cyanosis being marked one-tenth of a grain of pilocarpine was given with the view of liquefying and causing absorption of inflammatory products. On the following morning both lungs had cleared remarkably. Profound toxæmic symptoms, however, continued and he died at 3.30 P.M. from cardiac failure. Toxæmic features were prominent throughout the whole case and it resembled the pneumonia seen in alcoholics, as after the first 48 hours there was scarcely any cough or expectoration, the fever was never very high, and there was active delirium. In addition to general stimulating treatment two pints of warm saline solution were injected into the cellular tissue of the axilla. No history of alcoholism could be obtained. A feature in this case also was the limited pyrexia.

The last two cases are instructive in showing that the

[1] THE LANCET, March 21st, 1903, p. 823.

prognosis in pneumonia does not depend so much on the extent of lung affected as on the amount of toxic symptoms present and the absence of a healthy reaction in the individual attacked. A low range of temperature is not necessarily a favourable sign, especially if accompanied by delirium, scanty expectoration, little cough, and a dry brown tongue.

From my limited experience of the action of pilocarpine I believe that it will occupy a leading place in the treatment of pneumonia. It relieves pleuritic pain and breathing within a few hours of its administration and also seems to hasten resolution, probably by exciting glandular secretion. Its administration is in the majority of cases followed by a rise of temperature of from half a degree to one and a half degrees. One-tenth of a grain hypodermically does not cause profuse perspiration but rarely fails to reduce the temperature within an hour or two. It also cleans the tongue and stimulates the flow of saliva. I have not noticed its repeated administration attended by any undesirable or unpleasant results. One precaution is necessary—namely, to keep the patient warm and especially the feet. I regret that owing to the loss of some notes and temperature charts I have to generalise instead of giving full statistics and details of the cases, but I trust that from the above rough notes—jotted down while on active service in South Africa—I have succeeded in drawing attention to a drug which will frequently prove of practical value in cases of pneumonia.

Bournemouth.

# Clinical Notes:

## MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

### METHYLENE BLUE IN THE TREATMENT OF MALIGNANT MALARIAL FEVER.

BY J. M. ATKINSON, M.B. LOND., M.R.C.S. ENG., D.P.H. CANTAB.,
PRINCIPAL CIVIL MEDICAL OFFICER, HONG KONG.

As is well known, quinine has practically no effect on the crescent bodies met with in malignant malarial fever. It is these bodies which, when ingested into the stomach of the mosquito, undergo those changes which terminate in the formation of the germinal rods or sporozoites. These are carried in the body fluid of the mosquito to its salivary glands and are the actual source of infection in man. Hence the importance of finding some drug that will destroy them. I have recently been trying the effect of the internal administration of methylene blue on a Chinese boy, aged 15 years, who was admitted into the Government Civil Hospital on Jan. 24th, 1903, suffering from malignant malarial fever. On examining his blood numbers of crescents were found and as quinine administered for a week had no effect in diminishing these, on Feb. 9th two grains of methylene blue were given thrice daily in the form of a pill. On the 16th, after careful examination, no crescents were to be found in his blood. As the patient was now suffering from gastric disturbance, nausea, vomiting, &c., which I thought might be due to the drug, it was discontinued. The blood was again examined on the 17th and 20th and was found to be free from crescents.

The above is only one case, I admit, but knowing the importance of reporting the effects of any drug which will kill these crescents I send this note.

Hong Kong.

### A CASE OF RUPTURED OVARIAN CYST.

BY ALFRED CLARK, F.R.C.S. EDIN.

ON March 14th, 1903, I was called to see a married woman, aged 25 years, who had been suffering from severe abdominal pain and metrorrhagia at about fortnightly intervals for three or four months. She had one child three and a half years old and had never been pregnant since. I found her in bed, blanched, restless, with sighing respiration, a feeble pulse of 130 per minute, and a temperature of 102° F. Her abdomen was slightly distended, acutely tender, and rather dull on percussion. The left iliac region was a little more full than the right and was more resistant on palpation. With a hypodermic injection of one-fiftieth of a grain of strychnia her pulse improved somewhat and I had her removed at once to a private hospital where at 10 P.M. Dr. T. G. S. Hodson administered chloroform and I opened the abdomen with an incision four and a half inches in length, the patient being in the Trendelenburg position. There was a large quantity of blood clot in the abdominal cavity. After removing this I found an ovarian cyst on the left side about as large as an ostrich's egg with a straight rent in its anterior aspect about three inches in length. Venous oozing was still going on from the edges of the rent. The cyst wall was thick and very adherent to the bladder and small intestines. A piece of cyst wall was so intimately adherent to the latter that I had to leave it lest I should tear the bowel. Then I removed the left ovary and examined the right. This had a thin-walled serous cyst as large as an orange, so I removed this also. The operation lasted about 45 minutes as the adhesions made it tedious and the patient was removed to bed in a bad condition and with a very feeble and fluttering pulse, but she rallied after a hypodermic injection of one-fiftieth of a grain of strychnia. She had rather troublesome vomiting of bright-green material for a couple of days and on the second and third days passed some blood-stained mucus from the bowels. Otherwise she made an uninterrupted recovery. I removed the sutures on the fourteenth day and she was discharged a few days later. A fortnight later she called at my house and said she felt better than she had done for a year or more.

Bitterne, Hants.

# A Mirror
OF
# HOSPITAL PRACTICE,
## BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

### SOUTH WIMBLEDON AND MERTON COTTAGE HOSPITAL.

#### A CASE OF CÆSAREAN SECTION FOR CONTRACTED PELVIS; RECOVERY OF THE MOTHER AND CHILD.

(Under the care of Dr. MARTIN RANDALL and Dr. A. H. GERRARD.)

IN this case, which was one of full-term pregnancy, the patient was a primipara, aged 21 years. The pains commenced slightly on August 24th, 1902. On the 26th the patient was seen by Dr. A. H. Gerrard when he found the waters broken and the head presenting above the brim. He came to the conclusion that the pelvis was greatly contracted and he asked Dr. M. Randall to see the case with him. The patient was a small woman but not obviously malformed. Her general condition was good. The pains were regular and strong, the membranes were ruptured, and the os was of about the size of a five-shilling piece. The head could be felt freely moveable higher up. The sacral promontory was very large and projecting, the diagonal conjugate being under three inches. The estimate on measuring was two and seven-eighths inches; this would indicate a true conjugate of not much over two and a half inches. As the head appeared on abdominal palpation to be of normal size, the alternative of craniotomy or Cæsarean section was put to the patient and her friends and the latter was chosen. The patient was removed to the hospital. Dr. D. Findlay administered ether and Dr. Gerrard and Dr. T. Brice Poole assisted at the operation. A hypodermic injection of one-twenty-fifth of a grain of strychnine was given and the vagina was washed out with a 1 in 1000 solution of biniodide of mercury.

After opening the abdomen a piece of stout elastic tubing was passed behind the uterus to the cervix. This was rendered very easy by a thick copper wire passed along the bore of the tubing; the wire was removed as soon as the

rubber was *in situ*. Gauze sheets having been packed round the uterus this was quickly incised and opened, the child was seized by the back and removed, and the cord was clamped and cut. Bleeding was free for a few seconds and then the ligature was tightened. The incision at its upper end just notched the placenta which was situated at the fundus. The placenta and membranes were stripped off and the inside of the uterus was swabbed out with biniodide of mercury lotion. The uterine incision was sutured in two layers. Fishing gut was used for the deep sutures which were passed only through muscle and submucous tissue, the peritoneum and mucous membrane being excluded. The peritoneum was then sewn together by interrupted stitches of fine silk so as to bury the knots of the deep sutures. The uterus was now well contracted and was returned into the abdomen. A piece of one Fallopian tube was excised between ligatures but Dr. Randall regrets to say that the other tube was only ligatured once. The peritoneal cavity was found to be unsoiled, so the abdominal wound was sewn up by silkworm-gut sutures. The recovery of the mother and child was normal, the baby being suckled and the mother being desirous of getting up on the third day.

*Remarks by* Dr. RANDALL.—I must express my thanks to Dr. Gerrard for his skilful after-treatment of the case and for the opportunity of operating on the patient. The only points to which I would draw attention are the ease with which the wire allows the elastic tube to be passed round the uterus—the idea is not original—and the unorthodox, but successful, method of suturing the uterus.

## BRISTOL GENERAL HOSPITAL.

### A CASE OF TUBERCULOUS PERICARDITIS NECESSITATING FREQUENT ASPIRATIONS.

(Under the care of Dr. J. ODERY SYMES.)

A YOUTH, aged 19 years, was admitted as a surgical patient to the Bristol General Hospital under the care of Mr. C. A. Morton on Jan. 10th, 1903 There was a small superficial abscess in the anterior axillary line over the fourth rib and this was incised and drained. It did not communicate with the pleura, but an exploring needle which apparently was inserted into the right pleural cavity (with great difficulty owing to the falling in of the chest wall) drew off a little pus. Dr. J. Odery Symes saw the patient in consultation with Mr. Morton on Jan. 11th. The pericardium was tapped and five ounces of blood-stained fluid were withdrawn. The boy was transferred to the medical wards under the care of Dr. Symes on the 12th. With regard to the patient's history, he had had no illness of any sort until a fortnight before Christmas, 1902, when he noticed a swelling rise over the front of the right chest. On Christmas Day there were pains in the left chest and back and these had continued since. There was breathlessness on exertion and the patient had to give up work but had not been confined to bed. Cough was slight and no wasting was noticed. On Jan. 12th the condition was as follows. The patient was a delicate-looking, wasted lad. The right side of the chest was flattened and immobile, the lower ribs having fallen in and lying in contact with one another. The left front was unduly prominent, especially over the præcordium. On the right side there were signs of consolidation of the upper lobe of the lung and of fluid in the pleural cavity below. Over the left lung, back and front, the vesicular murmur was harsh, exaggerated, and bronchial and fine râles were heard; the posterior pericardial patch of dulness and the posterior pericardial patch of tubular breathing and ægophony were well marked. The respirations were 38. There was bulging of the præcordial region and dulness extended above as high as the first rib, to the right one inch from the sternal border and to the left to the anterior axillary fold. The heart sounds were almost inaudible and a rough friction sound occurred with respiration in the third left space in front. The pulse was 120, weak, and irregular in force and frequency. The pulsus paradoxus was at times present. The liver was enlarged, being especially prominent in the epigastric region, where, too, it was thought a mass of thickened omentum could be felt. There were fluid in the peritoneal cavity and a trace of albumin in the urine. In consequence of the re-accumulation of fluid in the pericardium tappings were made on the following dates: on Jan. 16th, six and a half ounces were drawn off; on the 31st, five and a half ounces; on Feb. 13th, seven ounces; and on the 20th, 12 ounces. The spot chosen for the punctures was the fourth left costal interspace close to the edge of the sternum. The fluid was blood-stained, the specific gravity was from 1020 to 1024, it was alkaline, cloudy, and when centrifugalised showed in addition to leucocytes a large number of tubercle bacilli. After each aspiration there yet remained a considerable quantity of fluid in the pericardium and for this reason it would have been better to have attacked the sac by puncture up through the epigastrium and this might have been done with a cannula and trocar as the fluid was under positive pressure. The cardiac failure and dyspnœa were much relieved after each aspiration. The progress of the case does not call for much comment. An unsuccessful attempt was made to draw off the fluid from the right base by means of an aspirator but the space between the ribs did not permit of a needle being passed. The friends refused to have any operation performed necessitating the administration of an anæsthetic. Considerable œdema of the right leg and thigh developed and to a lesser degree the left limb was similarly affected. Brief intervals of delirium were noted and for a few days there were symptoms of an abscess pointing at the base of the right lung in front. The red œdematous swelling, however, subsequently subsided. The temperature was of a hectic type throughout. The urine was scanty and albuminous. The patient's strength gradually failed and he died on March 3rd. The friends refused permission to make a post-mortem examination.

*Remarks by* Dr. SYMES.—The case was apparently one of primary tuberculosis of the right lung, secondary empyema and collapse of the lung, and tuberculous invasion of the pericardium and peritoneum. It is remarkable that the patient was apparently but little inconvenienced by the pulmonary collapse, which from the condition of the chest wall on admission must have been of old standing. He could give no history of a previous illness and had not been incapacitated from work. The pericardial effusion which had apparently been accumulating for over a fortnight, though incapacitating him for work, had not prevented him walking about. The ease with which tubercle bacilli could be demonstrated in stained films of the exudate is a striking testimony to the value of the electrical centrifuge as an aid to bacteriological examinations. I have to thank the house physician, Dr. C. C. Shaw, for the notes on the case and for performing the required aspirations.

# Medical Societies.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

### *The Differentiation of the Continued and Remittent Fevers of the Tropics by the Blood Changes.*

A MEETING of this society was held on May 12th, Mr. ALFRED WILLETT, the President, being in the chair.

Sir DYCE DUCKWORTH, who had represented the society at the International Congress of Medicine in Madrid, gave a short account of the work of the Congress.

Captain LEONARD ROGERS, I.M.S., M.D., read a paper on the Differentiation of the Continued and Remittent Fevers of the Tropics by the Blood Changes. The paper dealt with a series of some 200 cases of continued and remittent fevers worked out during the last two years in the European and native hospitals in Calcutta with both the serum tests and the differential leucocyte count. The question was discussed as to whether there were any hitherto undifferentiated fevers to be met with, such as were described by Dr. Crombie in his address before the Indian Medical Congress in 1894, which had not previously been put to the test of modern methods of diagnosis. In all the cases the differential leucocyte count had been carried out, as Captain Rogers had shown that by its means very valuable aid could be obtained in differentiating typhoid from malarial remittent fevers, this being of the greatest value in this research on account of the impossibility of finding parasites in most cases of malarial fevers which had been given quinine before they came under observation, as was nearly always the case with European patients. 50 consecutive cases of typhoid fever were first dealt with; a short clinical account based on the analysis of the notes and tables of the results of the serum test and the leucocyte counts were given. The latter bore out Captain Rogers's

earlier results in a different and smaller series of cases with regard to the very frequent presence of an increase in the percentage of the lymphocytes in typhoid fever without any increase of the large mononuclear white corpuscles, except during the stages of convalescence or in cases complicated by malaria. The frequency of typhoid fever in natives, as shown by the serum test, was then briefly dealt with, and this confirmed Captain Rogers's former experience on this subject—a point of some importance in view of Dr. Crombie's statements that the disease was very rare in natives of India. In a similar way a series of malarial remittent fevers were dealt with and the great value of the large mononuclear increase in the diagnosis of this class of fevers was illustrated. Further certain clinical features of considerable diagnostic importance based on the records of both series of cases were pointed out, which enabled many cases to be accurately diagnosed without the use of the blood tests. Next, the question of the presence of new fevers, in addition to typhoid fever and malaria, was discussed in relation to Dr. Crombie's classification based on clinical experience, and a chart was given of the cases treated in the European General Hospital during the last three years, showing the seasonal distribution of the different forms of fever, which supported the conclusion of Captain Rogers that there were no new fevers of common occurrence and that the so-called "simple continued fevers" were malarial in nature, while that described by Dr. Crombie under the term "non-malarial remittent" and seen by him nearly exclusively in natives was nothing but typhoid fever. Lastly, some recent observations on the so-called "low fever" were recorded and the nature of this affection was discussed. A series of charts illustrating cases of special interest were shown.

Dr. PATRICK MANSON said that he differed entirely from the conclusions arrived at by Captain Rogers, which seemed to him to be based on quite inadequate grounds. Dr. Manson pointed out that an increase of the large mononuclear leucocytes occurred not only in malaria but was present also in trypanosomiasis and that the diagnosis of malaria could not rest on that point alone. Captain Rogers's experience was founded on observations of fevers seen in Calcutta and could not be applied to tropical fevers generally, since the type of African fevers differed greatly from the fevers occurring in India. He was certain that there were many varieties of continued fever which were neither malarial nor typhoid. He thought that quinine given by the mouth and absorbed was as effectual as quinine given by hypodermic injection. He considered that Captain Rogers's conclusions were premature and not gathered from a sufficiently large field to justify the statements made.

Dr. A. E. WRIGHT said that he neither approved of the conclusions arrived at by Captain Rogers nor of the method on which those conclusions were based. He pointed out that the large mononuclear cell might be very considerably altered by the pressure of the cover-slip and that it was extremely difficult to fix a definite standard of size. He would like to know what the condition of the blood might be and whether there was an increase of large mononuclear cells in the case of a normal man who was taking large doses of quinine. He pointed out that the greatest number of mononuclear cells was not found in those cases in which the malaria parasite could be demonstrated to be present. He was of the opinion that there were many remittent fevers which had not yet been classified.

Dr. GEORGE LOW agreed that the increase of the mononuclear leucocytes could not be taken as evidence of malaria but he did not think that there was much difficulty in estimating the number.

Captain ROGERS replied.

## MEDICAL SOCIETY OF LONDON.

*Annual General Meeting.—The Pathology and Treatment of Enlarged Prostate.—Chorea in Pregnancy.—Election of Officers and Council.*

THE annual general meeting of this society was held on May 11th. Dr. FREDERICK S. PALMER, one of the Vice-Presidents, being in the chair. The annual reports of the council, the honorary librarian, and the house and finance committees were received and adopted.

An ordinary meeting was then held, Mr. A. PEARCE GOULD, the President, being in the chair.

Mr. W. BRUCE CLARKE read a paper entitled "Some Points in the Pathology and Treatment of Enlarged Prostate." Reference was made to a paper by Sir William Thomson[1] on the subject, and preference was expressed for the term "prostatic obstruction" rather than "prostatic enlargement," because in many cases where symptoms arose very little enlargement of the gland was present. Mr. Bruce Clarke contended that prostatic obstruction was the result of several pathological conditions and not of one. Some of these were accompanied by enlargement of the prostate and some were not. After quoting various authorities on this point he described three principal varieties of obstruction—(1) adenoma, (2) fibrous prostate due to sclerosis of gland tissue, and (3) varicosity of the veins of the prostatic urethra and trigone. Each of these demanded different treatment. The adenoma must be shelled out, while for the fibrous prostate, which was very difficult to remove, it was quite sufficient to remove one-half of the gland. This plan of treatment had been very successful in his hands. In the vascular prostate the cause of the obstruction was the blocking of the urethral orifice by the prolapse of the mucous membrane of the trigone which was loosened by the subjacent varicose vessels. A method of cauterisation similar to that which was practised in prolapse of the rectum produced satisfactory results. 33 cases were then related, three of which ended fatally, giving a mortality of 9 per cent.—Mr. REGINALD HARRISON referred to that form of prostatic obstruction due to carcinoma. He related two cases which he had recently observed and exhibited the prostate glands which had been removed. These and other cases showed how impossible it was to eradicate malignant disease from this situation. The high-frequency current and Roentgen rays were probably preferable as a means of treatment.—Mr. F. SWINFORD EDWARDS indorsed the previous speaker's remarks as to the comparative frequency of malignant disease as a cause of prostatic obstruction. Several cases in Mr. Edwards's experience had been due to calculus. In cases of soft vascular prostate double vasectomy was advisable. The cystoscope could be employed in most cases of enlarged prostate and its use should not be omitted. The results of enucleation were admirable when the operation did not terminate fatally, and it was often very successful. The hæmorrhage was only moderate in Mr. Edwards's experience.—Mr. CUTHBERT S. WALLACE denied that there was in the prostate gland a separate capsule in the same sense that the kidney had a capsule. He submitted that total prostatectomy consisted in reality in the shelling out of large adenomatous masses. In regard to vasectomy it had no effect on the prostate. This had been shown by John Hunter.—Mr. BRUCE CLARKE, in replying, said that his remarks had reference only to non-malignant cases and he admitted that malignant disease was a common cause.

Dr. CECIL WALL and Dr. H. RUSSELL ANDREWS made a communication on Chorea in Pregnancy which comprised an analysis of 40 cases occurring in 37 patients. The chorea had occurred in the first pregnancy in 18 cases; in 10 cases the first pregnancy was not attended with chorea but the disease occurred in later pregnancies; in six cases chorea had recurred in subsequent pregnancies. 16 out of the 37 patients had previously suffered from rheumatism in some form. In 11 there were no rheumatic manifestations. As regarded the month of pregnancy in which the movements began the largest number of cases were to be found in the fourth and fifth months. There were two spontaneous abortions, and both of these cases were fatal. There were five fatal cases among the 40. In two of these five abortion was induced and in two others abortion had been spontaneous. The use of bromides or opium was strongly deprecated and arsenic was advocated. Induction of premature labour was not recommended.—Dr. ROBERT JONES said that his experience was limited to cases of chorea associated with insanity, and he dwelt on the association of mental states with muscular movements. Muscular movements were more often associated with dementia and melancholia.—Dr. F. J. MCCANN remarked that the movements of a fœtus were of a choreic type. There were many different kinds of chorea. The influence of "quickening" on the determination of an attack of chorea was also referred to. Chloral was advocated for its treatment.—Dr. G. E. HERMAN remarked that the frequency of spontaneous abortion in pregnancy complicated by chorea was not any greater than in normal pregnancies. He did not advocate the induction of premature labour; it certainly did not cure the disease or improve the prognosis in his experience.—Dr. AMAND J. M. ROUTH remarked that two types of chorea were

[1] Brit. Med. Jour., May 31st, 1902.

met with in pregnancy, a severe and a mild type. Chloroform inhalation was efficient in some cases. As regarded the induction of premature labour, there was great danger of sepsis in these cases when labour was induced, and from this the patient might die; apart from this danger his belief was that it relieved the chorea; though it was not always advisable by any means, it might be indicated in some cases.—Dr. WALL and Dr. ANDREWS replied, pointing out that the records of such cases showed that when abortion was performed the chorea disappeared in a few weeks, but it was a dangerous method to adopt.

The report of the scrutineers of the ballot showed that the following gentlemen had been appointed officers and members of the council for the ensuing year:—President, Dr. F. de Havilland Hall. Vice-Presidents: Dr. Frederick S. Palmer, Mr. Henry Morris, Dr. Charles E. Beevor, and Mr. Bernard Pitts. Treasurer: Mr. David H. Goodsall. Librarian: Dr. Arthur Francis Voelcker. Honorary Secretaries: Dr. Henry A. Caley and Mr. H. J. Waring. Honorary Secretary for foreign correspondence: Dr. H. D. Rolleston. Council: Mr. Arthur E. Barker, Dr. J. Vincent Bell, Dr. J. Rose Bradford, Dr. J. Walter Carr, Dr. Charles W. Chapman, Mr. F. Richardson Cross, Mr. Frederic Durham, Mr. Frederic S. Eve, Dr. William Ewart, Dr. Robert A. Gibbons, Mr. A. Pearce Gould, Dr. Montague Handfield-Jones, Mr. Jonathan Hutchinson, junior, Mr. Richard Lake, Dr. Marmaduke Prickett, Dr. Arthur H. Robinson, Mr. A. Mayo Robson, Dr. George C. Steele-Perkins, Dr. William J. Tyson, and Mr. Cuthbert S. Wallace.

## CLINICAL SOCIETY OF LONDON.

*Hair-ball in the Stomach.—Spinal Meningo-myelocele.—Angioma of Synovial Membrane and Muscle.—Cellulitis of the Round Ligament and Spermatic Cord and its Relation to Strangulated Hernia.*

A MEETING of this society was held on May 8th, Mr. HOWARD MARSH, the President, being in the chair.

Mr. C. A. MORTON (Bristol) read a paper on a case of Hair-ball removed from the Stomach. The patient, a young woman, aged 18 years, had a large, hard, and very freely moveable and resonant abdominal swelling which had been noticed for some months. The chief symptoms had been pain and vomiting. The latter occurred mostly after food, but often in the night. No exact diagnosis was possible but the free mobility and resonance suggested an omental mass of tubercle or new growth. The hair-ball weighed 1 pound 12 ounces and measured 6 inches across and was 2½ inches thick. It was removed through a four-inch incision in the stomach and the patient made a good recovery. After operation a history of eating hair and cotton was obtained. References were made to other published cases in which hair-balls had simulated omental growths or fæcal masses in the colon or cystic disease of the spleen and attention was called to the free mobility of abdominal swellings due to hair-balls in the stomach.—Mr. E. P. PATON referred to a similar case under his own care in a child aged nine years. The patient was in perfect health, the tumour having been accidentally discovered.

Mr. H. BETHAM ROBINSON read notes of a case of Spinal Meningo-myelocele in which the tumour simulated an abdominal cyst. He showed the specimen, which was removed from a female child, 11 months old, who displayed various malformations and the abdomen was fuller than natural on the right side, having markedly increased in size during the previous two months. There was no prominence of the umbilicus but there was evidently an encysted collection of fluid which, however, did not become tense unless the child strained. Abdominal section was performed and a bluish cyst presented which was tapped, giving vent to about a pint of clear fluid. The sac was firmly adherent to the right side of the spine just below the transverse mesocolon. The finger could be passed through it into a hole in the side of the spinal column. It was ligatured and cut away. There was no appearance of nerve structures in the cyst wall. The fluid had a specific gravity of 1002 and was alkaline, being obviously of cerebro-spinal origin. The child died ten days later. Post mortem extensive abnormalities of the spinal column were found, the defect involving the bony walls of the right side of the last two dorsal vertebræ and all the lumbar region. The development of the bodies of the vertebræ was very irregular. There was marked dilatation of the central canal of the cord. With this specimen he showed one from the museum of the Royal College of Surgeons of England (No. 322), exhibiting a similar defect of the vertebræ.—Mr. R. CLEMENT LUCAS remarked that on examining the specimen there appeared to be an absence of the lateral portions of the vertebræ and laminæ on the right side, suggesting that there might have been a projection behind, the fluctuation of which would have been communicated to the intra-abdominal tumour. He asked whether the brain had been examined and whether any obstruction in the fourth ventricle was noted.—Mr. ROBINSON, in reply, said that there was no projection posteriorly. The brain was examined but no abnormality was noted.

Mr. F. S. EVE read a paper on four cases of Angioma of Synovial Membrane and of Muscle. Case 1 was that of a girl, aged 15 years, who had a swelling on the outer side of the thigh just above the knee, of four years' duration, which was gradually increasing. An exploratory incision was made. The swelling was found to be a diffuse angioma involving the upper part of the synovial membrane of the knee and the vastus externus muscle. It was removed with the affected portion of synovial membrane. A good recovery resulted. Case 2 was that of a boy, aged 10 years, who had a painful swelling which restricted movement occupying the left knee-joint and the inner side of the ligamentum patellæ, causing pain and loss of mobility. A transverse incision was made into the joint and a rounded angioma of synovial membrane, about three-quarters of an inch in diameter, was removed. Case 3 was that of a woman, aged 23 years, who had a painful swelling on the inner side of the elbow which rendered movement difficult. An angioma of the synovial membrane between the internal condyle and the olecranon was removed. Case 4 was that of a man, aged 24 years, who had a swelling on the outer and posterior aspect of the elbow resembling a lipoma. A "fatty"-looking growth was removed from the triceps, anconeus, and synovial membrane, which was found to be an angioma. All the cases occurred between the ages of 10 and 25 years. Some of the patients complained of symptoms suggestive of tuberculosis such as pain increased by movement, and tenderness and limitation of movement; two showed wasting of muscle and two had "starting" pains. In Cases 2 and 3 the angioma was entirely confined to the synovial membrane. The swelling was usually soft and elastic but pulsation and the emptying of it by pressure were not observed. No record of cases of angioma of synovial membrane could be found, but Campbell de Morgan in 1864 and others since had described cases of angioma of muscle.—The PRESIDENT said that he had never seen cases of precisely the same kind as those described by Mr. Eve. He suggested that the swellings sometimes became inflamed and so came to present a close resemblance to active tuberculous disease. He referred to a case at St. Bartholomew's Hospital in which the patient presented a pulsating tumour in the thigh which was thought to be an aneurysm and was sent in for ligature. On examination the pulsation was found to be very variable and under an anæsthetic the tumour entirely disappeared. It was probably a cavernous angioma of muscle.—Mr. CLEMENT LUCAS observed that most surgeons were familiar with this condition as met with in muscle and he referred to one case in which a very extensive nævoid condition reached from the thigh a long distance down the leg in a girl. It took several operations for its complete removal and the synovial membrane was in this case also extensively involved. He urged that in view of the success of surgical intervention they should not be afraid to operate in such cases.—Mr. PATON showed a specimen from a woman, aged 20 years. She had had an elongated soft swelling on the inner side of the thigh for several years which had increased consequent upon cycling. The skin over it was normal and on pressure it could be made almost to disappear. There was neither pulsation nor thrill. It involved, and was limited to, the gracilis muscle in its entirety and the muscle was excised from end to end. He called attention to the size of the vascular spaces.—Mr. ROBINSON recalled a case in which the flexor muscles of the forearm were involved without the skin being affected.—Mr. H. W. PAGE related the case of a man, aged 28 years, who was admitted to St. Mary's Hospital with a markedly pulsating swelling of three or four weeks' standing in front of the right knee; it was associated with much pain and rendered him unable to work. The diagnosis was very obscure. The swelling proved to involve the whole of the bursa beneath the patellar ligament and much of the synovial membrane as well as

muscle. The magnitude of the operation which the complete removal would have entailed led him to think that amputation of the limb would have been the only course. He was surprised to find that these cases were not so rare as he had believed.—Mr. EVE, in reply, agreed that symptoms might sometimes be due to temporary congestion as in Case 2, but he had never seen any trace of acute inflammation. He said that angioma of muscle alone was not rare and what he wished to point out was that the lesion might involve synovial membranes as well as muscles. In one of his cases the tumour had undergone almost entire metamorphosis into fat.

Mr. E. M. CORNER read a paper on Cellulitis of the Round Ligament and the Spermatic Cord and its relation to Strangulated Hernia. The first case was that of a young married woman who had been confined a year previously. Five days before admission her attention had been drawn to a lump in the left groin which caused pain. The lump increased in size and she vomited irregularly. The case was diagnosed as one of strangulated inguinal epiplocele with perhaps also a partial enterocele. At the operation the end of the round ligament with a lymphatic gland on it was found to be inflamed. The ligament was ligatured above this and the diseased part was removed. Leichtenstein and Hermann had recorded a similar case. From consideration of these two cases it was suggested that the mischief arose in an unhealthy condition of the endometrium following delivery, with consequent lymphadenitis of the gland alongside the distal end of the round ligament which was secondarily affected with cellulitis. This gland was known to be occasionally enlarged in cases of carcinoma of the fundus uteri. A case of cellulitis of the spermatic cord was also related, which occurred in a man, aged 25 years, as the result of a kick. The tumour was accompanied by vomiting and constipation of the bowels. Under treatment with hot lead lotion the swelling subsided. Three years later the testicle on that side was softer and much smaller than the other. These two processes illustrated in woman and in man respectively the fact that cellulitis of the round ligament and the spermatic cord might complicate the diagnosis of strangulated hernia.

## OBSTETRICAL SOCIETY OF LONDON.

*The Anatomy of the Pregnant Tube.—Exhibition of Specimens.—Inversion of the Uterus.*

A MEETING of this society was held on May 6th, Dr. EDWARD MALINS, the President, being in the chair.

Dr. H. RUSSELL ANDREWS read a paper on the Anatomy of the Pregnant Tube. He discussed the reasons why accurate knowledge of the minute anatomy of the pregnant tube had been only recently acquired. From a study of the literature of the subject, chiefly that of the last seven years, and from sections made by himself he gave a short description of the histological appearances of the tube and ovum in early tubal pregnancy. The question of tubal decidua was first discussed. In intra-uterine pregnancy decidual changes were not confined to the corporeal endometrium, similar changes being found in the connective tissue cells of the cervical endometrium and ovaries and also in the peritoneal cells. In tubal pregnancy decidual changes were found in the endometrium and in the connective tissue cells of all parts of the tube. A compact decidua, comparable to that formed in the uterus, was not formed in the tube, the difference in the amount of decidua in the two organs depending on differences in their anatomical structure. Dr. Andrews drew attention to the difference in the structure of the mucous membrane of the tubal folds and that of the mucous membrane between the folds. The latest researches on the imbedding of the ovum in the uterus were briefly mentioned and attention was drawn to the fact that the method of imbedding of the ovum in the tube was at first similar to this normal process, but that later the ovum bored its way into the tubal muscle on account of the comparative thinness of the tubal mucous membrane. The fœtal part of the placenta formed in the tube was in every way identical with that formed in the uterus. The maternal part, however, was markedly different in the two organs. A short account was given of the trophoblast as seen in the tube and it was shown that it was exactly like the trophoblast as described by Peters in uterine pregnancy. The danger to life associated with tubal pregnancy was due to the deep situation of the tubal placenta and the comparatively small amount of decidual formation. Abortion and rupture were explained as being results of the penetrating action of the trophoblast. These two accidents were very similar in etiology, the former being an "internal rupture," caused, as was the latter, by the destructive action of the trophoblast. The breach of surface on either the peritoneal or mucous aspect of the tube was brought about either directly by destruction of tissue by the trophoblasts or indirectly by increase of pressure due to bleeding from vessels the walls of which had been destroyed by these fœtal cells. Dr. Andrews came to the following conclusions:—1. That decidual formation did not occur in the tube in the early months of pregnancy to an extent comparable with that seen in the uterus. In many tubes the formation of a compact layer of decidua was anatomically impossible. 2. That the site of the ovum was outside the lumen in the tubal muscle. It seemed impossible to explain this deep site, except as being due to the eroding action of the trophoblast. 3. That the vessels were opened by the trophoblast. 4. That rupture and abortion were mainly brought about by the destructive action of the trophoblast.—Dr. T. W. EDEN said that Dr. Andrews was to be heartily congratulated upon the interesting and important contribution which he had laid before the society. So many points were raised that criticism of the paper was difficult, but he would like to make one or two remarks upon the mode of implantation of the tubal ovum, as described by Dr. Andrews. On reading what Dr. Andrews had to say upon this point he had been struck with the fact that there was remarkably little direct evidence in support of the contention that the ovum was implanted in the muscular layer of the tubal wall. With the exception of the case described by Füth there was practically no evidence at all in support of it; possibly the specimen shown to the society that evening by Dr. Cuthbert H. J. Lockyer would confirm Füth's conclusions, but at present it was impossible to speak definitely upon the point. On the other hand, it was to be borne in mind that the French school, as represented by Couvelaire and Cornil, entirely contravened Füth's position; it seemed to him that Dr. Andrews had not done justice to the important work of Couvelaire. His monograph, "Études Anatomiques sur les Grossesses Tubaires," was the most important work on the subject which had appeared since Clarence Webster's "Ectopic Pregnancy," yet Dr. Andrews had not made any mention of it in his paper. Couvelaire's view was that the tubal ovum was never completely imbedded in the tubal wall, as the uterine ovum was in the uterine wall, but remained with its outer pole uncovered except by an adventitious layer of fibrin; this he called the "free pole" of the ovum and described its relations with great minuteness. This decided difference of opinion upon a question of fact between Füth and Couvelaire appeared at first sight to be very perplexing, but it was possible that the explanation was to be found in the fact that Füth's ovum was much younger than any examined by Couvelaire. Their experience in regard to the uterine ovum had taught them that developmental questions could only be solved by the examination of very early specimens; deductions drawn from appearances found at later stages were very apt to be erroneous. He therefore welcomed the appearance of Dr. Lockyer's specimen which ought to yield important evidence upon this point. Another matter to which Dr. Eden wished to refer was Dr. Andrews's use of the expression that the tubal ovum developed "outside the lumen of the tube." This appeared to him not in any way to add to the accuracy of their conception of tubal pregnancy. Since Peters had shown that the uterine ovum buried itself in the decidua and developed there, it would be equally accurate to speak of the uterine ovum as developing outside the cavity of the uterus, but no one proposed to do so. He thought the point that Dr. Andrews should try to emphasise was that he regarded tubal implantation as intra-muscular and uterine implantation as intra-decidual.—Dr. LOCKYER, in connexion with this subject, showed a case of Incomplete Tubal Abortion which demonstrated the mode of implantation of the ovum in the wall of the tube. The specimen illustrated very clearly one of the most important points of Dr Andrews's paper—viz., that the manner in which the impregnated ovum burrowed by means of its trophoblast through the mucosa and into the muscle of the tube-wall, and there developed outside the lumen, was strictly analogous to what normally took place in the uterus, as

proved by Peters's specimen of early uterine pregnancy. Peters showed the fallacy of the older ideas regarding the mode of formation of decidua reflexa in which the ovum was regarded as a passive cell which acquired a covering of decidua by the latter growing up on all sides to inclose it. Peters proved that the ovum by means of its trophoblast penetrated the endometrium and Dr. Lockyer's specimen proved that the same process took place in the tube when the impregnated ovum lodged in that structure. The value of this specimen lay in the fact that the "capsularis" of the placenta was complete and this, Dr. Lockyer believed, afforded a hitherto unique observation. It negatived the view of Couvelaire that one pole of the ovum remained uncovered by a capsule derived from the wall of the tube. Couvelaire's researches were carried out on material derived from older specimens of tubal pregnancy than the one exhibited by Dr. Lockyer. In the latter the placenta had a diameter of half a centimetre only and although hæmorrhage had taken place in the placental tissues no blood had escaped into the lumen of the tube; consequently the placental capsule which projected into the lumen was uninjured by mechanical pressure and its microscopical structures were easily demonstrated. The sections were illustrated by colour drawings.—Mr. J. H. TARGETT had examined four cases of very early rupture of a gestation sac in the isthmus or narrowest part of the tube. In one of these cases rupture occurred on the seventeenth day after a single coitus (rape). They all showed extensive destruction of the muscular coat by the phagocytic action of the fœtal epithelium and ultimate rupture of the serous membrane. He had also examined a considerable number of ampullary gestations, most of which were tubal moles, and in none of them was there anything at all comparable with a uterine decidua, either beneath or around the ovum. He doubted whether the muscular coat would be penetrated so early in the ampullary gestation as in that of the isthmus, because in the former situation the ovum had much more room to expand.—Dr. ANDREWS, in reply, thanked the Fellows for the way in which they had received the paper. He had not had access to Couvelaire's monograph while writing his paper but had read it since. He did not consider that what might be called the German theory of the formation of the "capsularis" was disproved by Couvelaire's description of the membrane covering the "free pole" of the ovum. He had seen serial sections which proved the presence of muscle in the "capsularis." He quite admitted that in the majority of specimens it was impossible to demonstrate a perfect "capsularis," because the majority of specimens were spoilt by bleeding. He considered Dr. Lockyer's specimen an exceedingly interesting one, as showing a thin layer of muscle between the ovum and the lumen of the tube.

Dr. W. H. B. BROOK (Lincoln) showed a Uterus which he had removed by vaginal hysterectomy for primary tuberculosis of the cervix. A microscopical section from the same specimen, showing typical tuberculous structure with giant cells, was also exhibited. The specimen was removed from a married woman, aged 50 years, whose mother and one brother had died from phthisis. Since December last she had suffered from backache and leucorrhœa. On examination in February a circular ulcer with sharply-cut edges and a ragged depressed surface which did not readily bleed was found. A portion of this being excised showed the presence of multi-nucleated tuberculous giant cells. The whole uterus was removed on April 4th, the tubes and ovaries, which appeared healthy, being left. The body of the uterus was not affected nor was there any evidence of tubercle elsewhere. The patient's husband was a strong healthy man.—The case was discussed by Dr. C. J. CULLINGWORTH and Mr. TARGETT.

Dr. W. W. H. TATE showed two specimens of Fibromyoma of the Cervix treated by Abdominal Hysterectomy; Mr. J. S. FAIRBAIRN exhibited a specimen of a Cervical Fibroid which had given rise to severe hæmorrhage; and Dr. A. L. GALABIN brought forward Three Fibroids of the Cervix removed by hysterectomy.—In the discussion which followed Dr. H. R. SPENCER, Dr. CULLINGWORTH, Dr. G. F. BLACKER, Mrs. STANLEY BOYD, and Dr. AMAND J. M. ROUTH took part.

Dr. H. WILLIAMSON showed a specimen of Embolism of the Pulmonary Artery occurring 24 days after delivery. Eight days after delivery the uterus was explored on account of symptoms of septic infection and a small piece of retained placenta was removed. The patient made a good recovery and she was discharged from hospital 16 days later. On her way home, however, she suddenly became unconscious and died in a few minutes. At the post-mortem examination a large embolus, completely plugging the pulmonary artery, was found. The right uterine and internal iliac veins were also thrombosed.

Mr. STANLEY BOYD read a short communication on an unusual case of Inversion of the Uterus.—Dr. ROUTH and Dr. GALABIN took part in the discussion which followed.

## OPHTHALMOLOGICAL SOCIETY.

*Exhibition of Instruments, Cases, and Specimens.*

A CLINICAL meeting of this society was held on May 7th, Mr. W. LANG, the President, being in the chair.

Captain R. H. ELLIOT, I.M.S., showed Vañadi's Instrument for detecting Feigned Amblyopia. This instrument was constructed so that when looked into with both eyes open certain objects could be seen with one eye and certain others with the other eye, but it was practically impossible to say with which eye the objects were seen. If a patient who was supposed to have one blind eye described what he could only see with the two eyes together it proved that both possessed vision.—Remarks were made by Mr. W. M. BEAUMONT Mr. W. A. FROST, and the PRESIDENT.

Mr. G. BROOKSBANK JAMES showed a new Portable Perimeter, the chief feature of which was the small and compact compass in which it could be shut up for travelling purposes. It was made by Messrs. Baker of Holborn.

Mr. G. HARTRIDGE showed a woman who had Zonular Opacities in both Corneæ. For ten years there had been gradual failure of vision and posterior synechiæ were present in both eyes. Right vision = fingers; left vision = $\frac{6}{60}$. There was no definite specific history although the eyes were inflamed after the birth of her eighth child.—Both Mr. FROST and the PRESIDENT thought that there were probably other degenerative changes at the back of the eye.—Mr. G. HARTRIDGE proposed to try to remove the opacity by scraping.

Mr. G. W. ROLL showed a boy, aged 17 years, who had Microphthalmos with about 20 dioptres of hypermetropia. There were no colobomata of either iris or choroid and the vision right and left was less than $\frac{6}{60}$; with sph. + 15 D. it was $\frac{6}{6}$ with each eye. He had used atropine once but supplemented it with eserine on account of his fear of producing glaucoma.—Mr. FROST had seen a similar case in which glaucoma had been produced by the use of atropine in a patient aged 40 years.

Mr. PERCY FLEMMING and Mr. J. H. PARSONS exhibited Lantern Slides of an Eye which had all the appearance of containing a Glioma; it proved, however, to be one of persistent hyaloid artery with other congenital peculiarities.

Mr. SYDNEY STEPHENSON showed a man, aged 43 years, who had suffered from Gonorrhœa 15 years ago but denied syphilis. He now had several papillomata along the right eyelids and another on the hard palate. They had been removed several times but had recurred. Microscopic sections were shown, but as Mr. Stephenson had not removed them himself he was unable to say if their bases had been cauterised.

Mr. A. S. MORTON described a case of Conical Cornea in a woman whom he first saw in 1880 when she was aged 32 years. Right vision = J. 1 at two inches and left vision = J. 2 at two inches and less than $\frac{6}{60}$ with both eyes but with correction $\frac{6}{6}$. He excised the apex of the left cone at that time and afterwards did the same to the right. In 1881 the right vision with a low + sph. and cyl. = $\frac{6}{9}$ and J. 1 at a good distance and the left vision $\frac{6}{9}$ and J. 1 with sph. + 2. In February, 1901, the vision with both eyes remained at J. 1 at 12 inches and $\frac{6}{9}$, this being 21 and 22 years after the operations in the respective eyes. The scar was barely visible even with a good illumination. He had operated upon about 25 eyes for this disease and proposed shortly to publish his results; some of these he had done with the cautery.—Mr. FROST said that he preferred to use the cautery.—Mr. S. JOHNSON TAYLOR asked if the piece was always cut vertically.—The PRESIDENT thought that a vast number could be greatly improved with high convex cylinders without operation.—Mr. H. E. JULER thought that Mr. Morton's case was a marvellously good one. He himself preferred to use the cautery and to puncture.—Mr. MORTON, in reply, said that he always excised a vertical

portion and one case in which he had used the cautery gave him the greatest anxiety although the patient eventually made a good recovery. When he used this method he much preferred to puncture.

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*A Contribution to the Study of Rheumatic Iritis.—Two Cases of Tuberculous Choroiditis.—Report of Five Cases of Glaucoma in which Adrenalin caused an Increase of Tension.—Proptosis with Deformity of the Head.*

An ordinary meeting was held on May 8th, Mr. LANG, the President, being in the chair.

Dr. A. PAINE and Dr. F. J. POYNTON communicated a paper illustrated by lantern slides in which they endeavoured to establish the identity of the pathological changes in Rheumatic Iritis with those occurring in other accepted rheumatic affections. The diplococcus of rheumatism developing in the tissues and cells rather than in the fluid exudate rendered the identification of micro-organisms in fluids obtained by paracentesis of the anterior chamber unsatisfactory, while the opportunities of examining the iris itself in the acute phase of inflammation in the human subject did not often occur. The specimens, therefore, of iris exhibited, which showed the diplococci *in situ*, had been produced experimentally in rabbits. The distribution of the organisms was similar to that occurring in the synovial membranes, showing dense clumps.—Observations were made by the PRESIDENT, Mr. HARTRIDGE, and Mr. W. T. HOLMES SPICER in regard to the extreme rarity of iritis as a complication of true acute rheumatism and the probability that most cases of so-called rheumatic iritis had really their origin in gonorrhœa.—Dr. POYNTON, in reply, said that the demonstration of the special micro-organisms when present required nothing beyond the ordinary methods of preparation and staining. He was not sanguine about finding them in portions of iris removed in the quiescent period, as the subsidence of active inflammation was dependent on their destruction or reduction to a state of latency.

Mr. W. H. H. JESSOP described two cases of Tuberculous Choroiditis, one associated with Conjunctival Tubercle. The first case, that of a girl, aged nine years, was seen on Oct. 29th, 1901, when complaint was made of a burning sensation in the right eye associated with periodical attacks of inflammation and prominence of the lower lid. Later there developed a smooth, round, non-fluctuating swelling in the outer part of the conjunctiva which nearly reached the limbus of the cornea with enlargement of glands in the neck. In the right eye tension was — 1 and vision was $\frac{1}{60}$. There were two areas of detachment of the retina corresponding with two masses obscuring the disc. The external growth was incised and proved to be tubercle by inoculation experiments, characteristic bacilli being obtained. When seen again on Jan. 30th, 1902, vision was $\frac{6}{9}$; the masses in the fundus had practically disappeared, leaving patches resembling albuminuric retinitis, without either pigment, new vessels, or vitreous opacities. The second case was that of a woman, aged 23 years, who complained of misty vision and of a black spot in the field; the vision was $\frac{6}{9}$. A cyst in the breast was found to contain tubercle bacilli and there was a strong family history of tubercle. While under observation masses in the choroid similar to those described in Case 1 were seen to spread from the centre towards the periphery of the fundus, leaving but little trace behind them, and now after three years and four months the patient had recovered with good vision. Reference was made to 42 cases collected and described by Dr. George Carpenter and Mr. Sydney Stephenson.—Mr. STEPHENSON said that tubercle of the choroid, like some other conditions regarded as rare, ceased to be so when systematically looked for. Among 119 cases of tuberculosis which he had examined in surgical wards he had found 11 instances of affection of the choroid; further investigation had disclosed others but had not disturbed the proportion of about 10 per cent. in which the choroid was involved. He indorsed Mr. Jessop's observation as to the absence of residual pigment and vitreous opacities.—Mr. JULER inquired whether these cases had been treated by subconjunctival injection, as one case was on record in which the patient had recovered under local treatment alone.—Mr. JOHNSON TAYLOR asked if the open-air treatment was of use in such cases and suggested that the appearances described suggested to him congenital syphilis.—Mr. HOLMES SPICER said he had regarded tubercle of the choroid as very rare, whereas syphilitic changes in the choroid were comparatively common, and asked how they could with certainty be distinguished.—Mr. STEPHENSON said that of the cases he had collected 50 per cent. had been confirmed as tubercle, both pathologically and bacteriologically. The history was an important factor in the diagnosis, but in tubercle the lesion was solitary and centrally situated, while in syphilis it was multiple and peripheral in distribution.—Mr. JESSOP insisted on the importance of there being no residual pigmentation; he thought that the combination of tubercle with congenital syphilis was very common. In regard to treatment he had adopted little besides "the air at Margate."

Mr. A. F. MACCALLAN reported five cases of Glaucoma in which Adrenalin caused an Increase of Tension. The subject was of interest in connexion with the extended use of this drug in ophthalmic operations. In Case 1 the patient was a woman who had been treated by free instillation of eserine in both eyes. Tension in the right eye was normal; in the left it was + 1. After the use of adrenalin and eserine together there were headache and vomiting and tension in the left eye was + 3. In Case 2 a man suffering from acute glaucoma had a tension of + 2 in the left eye and + 1 in the right eye. Adrenalin and cocaine were applied before operation and the tension in the right eye rose to + 2. In Case 3 a woman suffering from acute glaucoma in the right eye, after the use of eserine presented a tension of + 1; the addition of two drops of adrenalin solution raised it to + 2. In Case 4 the patient was a man with increased tension who after the use of adrenalin presented symptoms of glaucoma, the tension being raised to + 2. After operation the vision was $\frac{6}{9}$ in each eye. In Case 5 a woman with acute glaucoma improved under eserine, the tension being + 2. Adrenalin was applied before operation with the result that tension was raised to + 3 and hæmorrhage occurred. An increase of tension was not the invariable consequence of the use of adrenalin, but it was common in cases of acute and subacute glaucoma, and in two such retinal hæmorrhage had occurred in the experience of Mr. MacCallan. Other cases in which adrenalin had been used showed no change in tension or in the fundus, but the vascular constriction produced by adrenalin appeared to prevent the absorption of other drugs such as those employed to contract the pupil.—Mr. N. BISHOP HARMAN mentioned the use of adrenalin solution in a case of episcleritis. The vision was reduced to $\frac{6}{18}$ and J. 8 with diminution of the colour fields. Improvement occurred after a week, the patient having discontinued the drug himself on account of the stinging pain which it caused.—Mr. JESSOP spoke of the pain and increased tension produced by the use of adrenalin in scleritis and episcleritis; he found that engorgement followed constriction of the vessels.—Mr. PARSONS thought that the effects of adrenalin in diseases of the eye were by no means uniform. Complications following its use were probably due to dilatation of collateral or deep-seated vessels and reactionary dilatation of the superficial ones after the initial contraction had subsided.—Mr. HOLMES SPICER thought that when the arteries were rigid the drug probably caused contraction of the veins.—Mr. JOHNSON TAYLOR considered adrenalin to be useful in limiting hæmorrhage if not otherwise dangerous; since using it he had observed no hæmorrhage in cataract extractions.

Dr. E. DONALDSON communicated a case of Proptosis and Deformity of the Head in a Male Child, two and a half years old, who was the youngest of three. There was nothing in the family history; the labour had been tedious but at full time and no instruments were used. The proptosis was present at birth to much the same extent as now. Half-a-dozen times the right eye had become dislocated forwards outside the lids. The child was in fair health except for slight rickets, the mother having continued to suckle him up to the present time, and he could walk well. He was 2 feet 8 inches high and there was no defect in other special senses or intelligence. The forehead was prominent in the mid-line and depressed on either side. The margin of the lids only just reached the limbus of the cornea in the primary position; in all movements of the eyes the sclerotic was exposed above and below. There was slight horizontal nystagmus; the eyes could be closed and the corneæ were covered during sleep. Movements were free with a tendency to diverge, particularly in the right eye; there was no pulsation and the globes could not be pressed back. So far as could be made out with the finger there was no deformity of the orbital plate. The anterior fontanelle was closed. The vision was defective, the optic discs being pale, but there were no corneal opacities. The case appeared similar to one shown by Mr. H. Power and recorded in the Transactions of

the society, vol. xiv., p. 212, the shallowness of the orbits being due to premature synostosis as pointed out by Mr. H. R. Swanzy in vol. xviii., p. 15

Mr. R. W. DOYNE showed a card specimen of Multiple Deformities of the Eye and Eyelids.

## LIVERPOOL MEDICAL INSTITUTION.

*Intestinal Obstruction caused by Bands.—Somnoform.—Therapeutic Applications of Chloretone.—Influence of the Semi-circular Canals and Labyrinth upon the Movements of the Eyes and Head.*

A MEETING of this society was held on April 30th, Mr. RUSHTON PARKER, the President, being in the chair.

Mr. G. P. NEWBOLT read notes of two cases of Intestinal Obstruction caused by Bands and successfully operated upon. In one, a woman, aged 31 years, there was a recurrence of the condition six months later, when a second successful operation was done at Damascus. In the other case, that of a woman, aged sixty years, two operations had been already performed for strangulated umbilical hernia and the third obstruction was due to a thick omental band under which a coil of intestine had slipped.—The PRESIDENT mentioned the importance of treating intestinal obstruction by starvation and opium. He quoted a case in which this line of treatment was successful. A recurrence took place and operation was necessary as the symptoms did not yield to treatment.

Mr. F. W. BAILEY read a note on Somnoform, describing its composition and alleged advantages. Its physiological action on respiration, circulation, and the nervous system was also discussed and a description of the mask and method of administration was given. Mr. Bailey alluded to the difficulty of knowing when anæsthesia was complete. In his opinion the development of a full and bounding pulse was the sign most to be relied on. No bad effects, he said, were noticed after single administrations, but after repeated doses he had met with violent headache and in one case there was collapse.—Mr. W. FINGLAND thought that whatever could be done by somnoform could be better and more safely done with nitrous oxide.—Dr. F. E. MARSHALL said that the chief objections to somnoform were its uncertainty of action and its disagreeable taste. It was easy to carry about. He, too, had noticed extreme throbbing headache which came on several hours after administration. He thought Bauer's or Ormsby's ether inhaler preferable to the handkerchief mask usually employed.—Mr. E. M. STOCKDALE, Mr. C. H. B. SHEARS, and the PRESIDENT spoke and Mr. BAILEY replied.

Dr. D. M. HUTTON read a short communication upon Some Therapeutic Applications of Chloretone. He had found the drug of great service in the vomiting of pregnancy, menstrual sickness, and sea-sickness. As a hypnotic and analgesic in organic disease of the stomach he could not speak of it with any confidence.—Dr. W. MACFIE CAMPBELL, Dr. LESLIE ROBERTS, Dr. W. B. WARRINGTON, and Dr. R. W. MACKENNA also spoke and Dr. HUTTON replied.

Dr. EDGAR STEVENSON read a paper on the Influence of the Semi-circular Canals and Labyrinth upon the Movements of the Eyes and Head. He rapidly reviewed the anatomy and nervous connexions of the canals and alluded to experiments on the subject made by himself and others. He suggested that they were the end organs of the seventh sense—that of orientation, and further that muscle tone was maintained by the integrity of the canals. The paper was illustrated by lantern slides and by the gyrations of some Japanese dancing mice.—Dr. K. A. GROSSMANN said that vertigo was not exclusively due to auricular causes or to a continuation of inertia after movement, for some forms were exclusively ocular.—Dr. WARRINGTON, Dr. F. A. GILL, and Dr. EDGAR A. BROWNE spoke and Dr. STEVENSON replied.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

*Exhibition of Cases and Specimens.—Lipæmia in Diabetes Mellitus.—Clinical and Experimental Observations upon General Paralysis.*

THE eighth ordinary meeting of this society was held on May 6th, Sir T. R. FRASER, F.R.S., the President, being in the chair.

Before proceeding to the general business of the evening Sir William Turner, K.C.B., LL.D., Principal of the University of Edinburgh, was elected an honorary member, and Professor Fritz Strassmann of Berlin a corresponding member, of the society.

Dr. D. CHALMERS WATSON showed a case of Keratosis Pilaris (with photographs to illustrate treatment). Dr. WATSON also gave a microscopical demonstration on the histo-pathology of the disease.

Mr. DAVID WALLACE, C.M.G., showed a Patient after Injection of the Nose with Paraffin (with photographs).

Dr. NORMAN WALKER showed two cases of Lupus Erythematosus.

Dr. W. H. MILLER exhibited a case of Hypertrophy of the Breasts in a girl.

Mr. H. ALEXIS THOMSON showed a patient after High Excision of the Rectum for Carcinoma with Preservation of the Sphincters and Complete Control.

Mr. CHARLES W. CATHCART showed (1) a patient after Kocher's Operation of Gastro-duodenostomy for Pyloric Obstruction; and (2) a patient after Compound Fracture of the Femur caused by two wheels of a loaded goods wagon passing over the thigh.

Mr. CATHCART also showed a Three-way Stop-cock for use in washing out the stomach or bladder.

Mr. WALLACE showed a skiagram of a Dart in the Orbital Cavity.

Mr. A. MILES showed (1) Intestine from a case of Hernia into the Duodeno-jejunal Fossa; and (2) Foreign Bodies from cases of Ano-rectal Fistulæ.

Dr. WATSON showed Photographs of a Dog affected with Disease of the Thyroid Gland associated with marked Obesity.

Dr. F. D. BOYD, C.M.G., gave a demonstration of Bancroft and Haldane's Apparatus for estimating Oxygen and Carbonic Acid in Small Quantities.

The PRESIDENT communicated a paper on Lipæmia in Diabetes Mellitus. He stated that he had brought the case before the society on account of the interest and rarity of the disease and because of the complete demonstration that was obtained post mortem of the existence of a large quantity of fat in the blood as well as of its presence during the life of the patient. The case was that of a youth, aged 17 years, who was admitted to the Edinburgh Royal Infirmary in May, 1902, suffering from the ordinary symptoms of diabetes mellitus. The patient had been in comfortable circumstances, was well fed, with no alcoholic tendency, and with a good family history. His work did not unduly expose him, as he usually worked under an open shed. He had enjoyed good health until 12 weeks previous to his admission, when he began to complain of great thirst, polyuria, and loss of weight. He was then seen by Dr. J. Macdonald of Carlisle who put him on a strict diet, together with morphine and under this treatment his condition improved somewhat. On admission the patient exhibited a fair amount of muscularity; his temperature was subnormal and remained so during the whole course of his illness. His breath had the acetone odour; the appetite was not voracious; the bowels were regular and occasionally moved twice in the day; the motions were well formed and of a good colour. There was no tenderness over the abdomen or pancreas and the liver and spleen were of normal size. The respiratory and circulatory systems were healthy, the pulse was slow and of low tension, there was no evidence of neuritis, and the fundus oculi was normal. As regards the urine, glucose, acetone, and diacetic acid were present. On admission he was placed on ordinary diet for some days, from May 19th to June 3rd. On June 4th diabetic diet was commenced and on the 20th 20 grains of phosphate of sodium were given twice daily and this really constituted the whole treatment. The body-weight remained fairly constant throughout, there being only a loss of a few pounds. Under dietetic treatment there was a decided reduction in the amount of urine and sugar excreted and this was further reduced by the phosphate of sodium. The patient began to feel much better and spoke of going home at the end of June. The acetone smell in the breath continued however. A faint albuminous cloud appeared later in the urine and on July 5th this became more pronounced and hyaline and granular casts were found to be present. Soon after admission the patient drank about 19 pints of liquid daily and excreted 351 ounces of urine, 10,000 grains of glucose, and 975 grains of urea. Under dietetic treatment he drank about 12 pints daily and excreted 245 ounces of urine, 6847 grains of glucose, and urea in about the former amount. These figures underwent a further reduction

during the succeeding week. From June 18th to 24th when taking phosphate of sodium the patient drank daily eight and a half pints and excreted 181 ounces of urine, 5000 grains of glucose, and 840 grains of urea. These figures were still further reduced during the succeeding weeks or until July 5th. On the afternoon of this day, however, he complained of feeling drowsy and generally of feeling unwell and contrary to custom remained in bed all the afternoon. At 7.30 P.M. the drowsy feeling passed off. On the 6th at 8.30 A.M. he was again drowsy; the lips were cyanosed; the pulse was very rapid (166 per minute), small, and feeble (previously his pulse had been about 76); and the respirations were deep and sighing. He gradually passed into a semi-comatose condition. At 9 P.M. phosphate of sodium solution was injected. At 10.30 A.M. on the 7th the face and the surface of the body generally showed a purplish-blue mottling, respiration was very difficult, pain could be elicited on pressing over the region of the stomach, and he moved the head from side to side. The fundus of the eye when examined showed the retinal vessels as pale streaks. At 4 P.M. the pulse was 160 and much weaker and irregular. A cardiac stimulant was injected with temporary improvement. Examination of the blood at this time showed that the red corpuscles were slightly "cloudy" in appearance and ran irregularly together without forming rouleaux. In the plasma an immense number of fine granules were present as well as clear highly refractile droplets which were half the diameter of the red cells. The specific gravity was 1036, the hæmocytes were 4,500,000, and the leucocytes were 23,800 per cubic millimetre. The hæmoglobin could not be estimated, as on mixing the blood with water it formed a semi-opaque liquid. On staining with osmic acid an immense number of fat droplets were demonstrated. At 9.30 P.M. a solution of carbonate of sodium together with strophanthin was injected and this was repeated every two hours subsequently. On the 8th the patient was completely comatose. Dr. G. A. Berry examined the eyes and found a peculiar and striking condition—namely, that the retinal vessels were white in colour, due to a change in either their contents or walls. The head was thrown back, the mouth was open, and the tongue was protruded. He died shortly after this. At the post-mortem examination all the serous cavities contained a large quantity of milky fluid. The blood which had escaped from the blood-vessels had a dirty-pink colour and the exposed blood-vessels, as on the surface of the brain, were white or reddish-white in colour along considerable distances of their course, as if they had been injected with wax. This condition was very markedly seen in the retinal vessels and when pressure was applied to them this white part moved along from place to place. The internal organs generally were healthy. There was a moderate amount of fatty degeneration of the liver which was most distinct at the periphery of the lobules. The hepatic capillaries were filled with this fatty matter when seen under the microscope. There were some congestion of the lungs and kidneys and great hyperæmia of the cardiac end of the stomach which contained some fatty-looking matter. The blood at first had a homogeneous dirty-pink colour. After standing in a vessel, however, it separated into two layers, a dark part below and a pale cream-coloured layer above, both nearly equal in amount. The liquid present in the pleural cavities (which was apparently an effusion) gave when it had coagulated even a larger proportion of the white material than did the blood. The President then showed lantern slides of the blood taken before the death of the patient in which it was seen that the granular matter was in reality due to particles of fat. A section of the lung showed that fatty particles filled the blood-vessels. In the liver and kidneys fat was also seen in capillaries. Nearly all of the internal organs exhibited great congestion, but it was the blood throughout all parts of the body which had undergone the most profound change. It contained an enormous quantity of fat in the form of minute granules. When subjected to quantitative analysis the fat present in the blood amounted to 16·5 per cent. as contrasted with from 0·2 to 0·5 per cent. in healthy blood. In ordinary cases of diabetes mellitus the proportion of fat in the blood was almost similar to that found in health. In a former case of diabetic lipæmia which the President had described in 1882, and in which he had determined during life the presence of a great mass of fat in the blood, the fat was present in the amount of 12·6 per cent. In other recorded cases it had varied from 1·3 to 11·7 per cent. In the pleural effusion in the case now described the fat was in even larger quantity than in the blood, as it amounted to 20 per cent. The President briefly ran over the literature of the subject, stating that a Dr. Mariet of Edinburgh had noticed excess of fat in diabetics as early as 1799. In 1879 Professor Sanders and Dr. Hamilton had carefully recorded such a case and advanced the opinion that the coma and dyspnœa of so-called "acetonæmia" were due to fat embolism in the pulmonary vessels. This theory was not accepted at present, as there were many cases of diabetic coma without lipæmia. It did not appear that the presence of fat in the blood definitely modified the ordinary symptoms of diabetic coma. The particles of fat were so fine that they could transude into any of the cavities and at the body temperature they were perfectly liquid and so could not be concerned in the production of embolism. Lipæmia must be regarded as an accidental circumstance in the course of diabetic coma. In all probability the diabetic coma was itself due to the presence of acid bodies in the blood, being really an acid intoxication in which β-oxybutyric acid was the most potent factor. A coma indistinguishable from diabetic coma could be induced in animals by injecting this acid into their bodies or by a reduction in the alkalinity of their blood. From 100 to 200 grammes of this acid could be recovered from the body of a person who had died from diabetic coma. The alkalinity of the blood was reduced in the case just described *before* the onset of the symptoms. As regards the origin of the fat, it was not a manifestation of a general fatty degeneration. Moderate fatty change was present only in the liver, kidney, and myocardium. Yet fat was abundantly present throughout the whole vascular system. It could not therefore have been derived from the blood or tissues. Coincidently with the appearance of coma there was a marked reduction in the excretion of sugar. The urine obtained post mortem contained 2·5 grains per ounce. The abrupt fall in the sugar could not have depended on any alteration in the kidney. On July 5th and 6th the sugar had begun to undergo extreme chemical changes leading to a greatly enhanced production of butyric acid as well as to an enormous production of fat. The blood post mortem contained no sugar (neither did that of the case described in 1882). There was strong evidence that in diabetes the sugar in the blood might abruptly undergo chemical changes into acids and occasionally into fat also. As regards treatment both acetonæmia and lipæmia might be recovered from. If the fatty transformation as well as the acetonæmia was due to an acidosis then alkaline treatment was indicated. In this case, perhaps, an insufficient amount was injected or else so much fat and acid had been elaborated that no treatment could have sufficed. The President indicated that this alkaline treatment should be given in large amounts and on the earliest sign of the presence of oxybutyric acid and fat. The presence of the first could be gathered from an examination of the urine and of the second by the blood. The urine and blood should, he thought, be examined in diabetic cases every one or two weeks for β-oxybutyric acid and excess of fat respectively. A young diabetic patient might at any moment pass unexpectedly into a condition of the most serious danger.

Dr. LEWIS C. BRUCE read a paper entitled "Clinical and Experimental Observations upon General Paralysis." He said that in his previous communication to the society his conclusions were (1) that general paralysis was a disease directly due to poisoning by the toxins of bacteria the point of attack of which was through the gastric and intestinal mucous membrane; (2) that the poisoning was probably a mixed one, but the bacillus coli communis was apparently one of the noxious organisms; and (3) that the result of treatment by means of serum taken from cases of general paralysis in a condition of remission and injected subcutaneously into early progressive cases pointed to the fact that some form of serum treatment was the proper treatment for this as yet incurable disease. Further observations had led him to modify conclusion No. 2, that the bacillus coli communis was a cause of the disease. He now believed that bacillus coli infection was a secondary one. In the Perth District Asylum recent acute cases of general paralysis were rarely admitted and so the material for observation was therefore limited. Since the commencement of these observations Dr. Bruce had treated in all eight general paralytics with serum derived from cases of general paralysis in a state of remission. Three of these patients had made apparently complete recoveries. The patient in Case 1 had been discharged for three years and earned his livelihood as a saddler; the patient in Case 2 had been discharged for 18 months and was working in the Post Office; and the patient in Case 3

had been discharged for nine months and worked as a dyer. Of the remaining five patients one was relieved and had shown no progressive symptoms for four years. The remaining four were not improved. The leucocytes were regularly examined in two of the patients who recovered and in all the patients who did not improve. The only change noted was a continuous hyperleucocytosis during the period when the serum was being administered subcutaneously in two cubic centimetre doses daily. In the patients who recovered the leucocytosis fell to below 10,000 per cubic millimetre of blood and the percentage of polymorphonuclear cells was generally below 50. As according to his previous observations the blood of 70 per cent. of general paralytic patients contained an anti-body which agglutinated the bacillus coli communis in low dilutions of 1 in 10, he treated two cases with anti-bacillus coli serum. Neither patient benefited by the treatment. The leucocytosis induced by the subcutaneous injection of antibacillus coli serum was often very high, running to 40,000 per cubic millimetre of blood. Dr. Bruce next investigated the leucocyte changes which occurred in the various stages of the disease. In his first series of observations he had already recorded that in patients suffering from general paralysis there was a recurrent hyperleucocytosis. In a second series of observations made on six cases the fact of a recurrent leucocytosis was confirmed. Stained films showed that in the first stage of the disease the polymorphonuclear leucocytes were generally present in a percentage of 70 or 80. As the disease advanced these cells diminished in number until in the third stage of the disease they might fall as low as 40 per cent. As the polymorphonuclear cells decreased the lymphocytes increased. An eosinophilia was invariably present at some time during the course of the disease and varied from 15 to 5 per cent. of the total number of leucocytes. This eosinophilia was a sign that the disease was active; it was not present in patients who had passed into a definite remission or who had recovered. It was a fact that the course of general paralysis was often temporarily arrested if the patient suffered from some intercurrent inflammatory condition such as erysipelas. To ascertain if this arrest of the disease were due to the leucocytosis induced by the inflammation or to the specific anti-bodies formed in the blood and tissues Dr. Bruce made the following observations. Three cases of general paralysis, all with acute symptoms, were treated with small doses of streptococcus pyogenes toxin. The organism was grown on nutrient broth for a week at a temperature of 37° C. The culture was then killed by heat. This was then tested on rabbits to ascertain its virulence. Each patient then received half cubic centimetre doses of the fluid subcutaneously. Case 1, a male, showed no reaction in temperature, pulse, or leucocytosis and there was no mental benefit. Cases 2 and 3 both gave a mild febrile reaction (99° and 99·8° F. respectively). The pulse in both rose to 100; slight leucocytosis was present (14,000 and 15,000 per cubic millimetre). The polymorphonuclear cells rose above 80 per cent. and the eosinophiles fell to 1 and 2 per cent. The most marked result, however, was the mental effect. Both patients became quiet and sensible, recognised that they were ill, and submitted to treatment. The effect of the first injection passed off in a week, when it was noted that the percentage of eosinophiles was again increasing in the blood. A second and third injection gave exactly similar results and then the patients evidently became immune as further treatment yielded no result. After a due interval the toxins of the staphylococcus aureus prepared in the same way were injected but the subsequent reaction was feeble and gave no definite results. The fact that in Case 1, where there was no hyperleucocytosis, there was no beneficial action and that in Cases 2 and 3, with a hyperleucocytosis with high polymorphonuclear percentage, there was distinct benefit would seem to indicate that the increased polymorphonuclear leucocytosis was the active agent in assisting recovery. The fact of the rapid reaction to the toxins injected and the immunity quickly produced as well as the failure in reaction of the staphylococcus aureus would point to the fact that the toxins of the streptococcus had produced some anti-body in the blood and tissues which temporarily raised the resisting power of the patients. To ascertain if the increased leucocytosis alone were capable of arresting the disease Dr. Bruce took Case 1 of the previous series, in which the patient had not benefited by serum treatment and observed the leucocytes, temperature, and pulse for several days. Two cubic centimetres of terebene were then introduced subcutaneously but with hardly any reaction and without benefit to her mental or physical condition. In the case of a male patient the reaction was marked; the leucocytes went up to 29,000 per cubic millimetre of blood; the polymorphonuclear cells were 80 per cent. There was great physical and mental benefit. In two months he was discharged to his friends. Two cases were treated with antistreptococcic injections of two cubic centimetres daily for over a month and both benefited temporarily but relapsed on discontinuance of the treatment. Dr. Bruce thought that the benefit was largely due to the leucocytosis induced. The results of these observations were, he thought, evidence against the theory that general paralysis was a disease due primarily to the breaking down of the brain neurons as the result of syphilitic poisoning and they supported the more recent view that the disease was due to the direct action of bacterial toxin which when temporarily overpowered allowed nature to put into force the constant attempts at recovery which were so marked a feature of the disease. Syphilis, plumbism, and great mental or physical strain were undoubtedly the predisposing factors, but without the direct bacterial attack there would be no such disease as general paralysis.—The discussion which followed this paper was brisk and in it the PRESIDENT, Dr. T. H. CLOUSTON, and Dr. W. FORD ROBERTSON took part.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

### SECTION OF OBSTETRICS.

*Exhibition of Specimens. — Gynæcological Report of the Rotunda Hospital for the Year 1901-02.*

A MEETING of this section was held on April 24th.

Dr. W. J. SMYLY exhibited the following card specimens: 1. Two Myomatous Uteri weighing 9 pounds. The first was removed because of its size and continued growth and the second for pain and pressure on the rectum. 2. A Uterus which was removed for Cancer of the Cervix. 3. Tubes removed for Tuberculous Disease.

Dr. SMYLY also showed the following specimens: 1. Ovarian Papillomata. The patient was first seen on Oct. 18th, 1902. The tumours, which were confounded with the uterus, on bimanual examination were supposed to be myomata. When seen on the 28th the abdomen was very much distended with ascitic fluid and the patient was suffering intense pain. Abdominal cœliotomy was performed on Oct. 31st. The abdominal peritoneum was studded with secondary growths and the omentum was a mass of disease. The two cystic ovaries, which were universally adherent, were removed with much difficulty and also the omentum. The patient recovered. 2. The patient from whom the specimen was removed was first seen in February, 1901. Though she had long passed the menopause a sanguineous discharge from the uterus had been going on more or less for two months. Curetting was advised but declined, and she was not seen again until six weeks previously, when a fungous growth was observed to be protruding from the os uteri. Vaginal hysterectomy was performed. The operation was a difficult one owing to the friability of the uterus, but it was successfully carried out and the patient made a good recovery. It was remarkable that an operation was still possible two years after the probable commencement of the disease. 3. This patient suffered intense distress from pelvic pressure and, the uterus being found enlarged and retroverted, the symptoms were attributed to the displacement. Abdominal suspension of the uterus by Kelly's method was performed, but owing to obstruction of the bowel the abdomen had to be reopened and the cause of the obstruction was found to be an adhesion of the rectum to the cervix, which it had been found impossible to separate at the original operation; the uterus was therefore allowed to return to its former position and the abdomen was closed. Her sufferings continued to be so great that she was obliged to relinquish her employment and when the removal of the uterus was suggested she readily consented to have the operation performed. About a fortnight previously Dr. Smyly performed a supravaginal amputation and the patient had made a good convalescence.

Mr. J. L. LANE showed a large Dermoid Cyst removed two months after confinement.

Dr. R. D. PUREFOY showed a specimen of (1) General

Follicular Enlargement of the Ovary; and (2) Rokitanski's Tumour of the Ovary.

Dr. PUREFOY read the Gynæcological Report of the Rotunda Hospital for the year 1901-02.—The discussion was postponed until the next meeting of the section.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—Meetings of this society were held on April 24th and May 1st, Mr. John Irving, the President, being in the chair.—Mr. J. Basil Hall read a paper on a successful case of Splenopexy.—Dr. E. Ward and Dr. P. Leech discussed the case and Mr. Hall replied.—Dr. Leech brought forward a case of Retro-peritoneal Hernia. The patient, a muscular man, 25 years of age, was seized in the early morning on a Sunday with violent abdominal pains. Two days later abdominal section was performed on account of intestinal obstruction when a left duodenal (retro-peritoneal) hernia was found, the sac containing about a yard of small intestine. The patient made a satisfactory recovery.—Dr. Ward, Mr. B. G. A. Moynihan, Dr. T. Churton, and Dr. J. B Hellier took part in the discussion and Dr. Leech replied.—Dr. J. Gordon Sharp read a paper on the Action of Morphine, Kino, and Calomel, illustrated by experimental and clinical evidence. In ordinary doses he believed that morphine was non-toxic to the patient after it had gone the round of the circulation. The loss of toxicity was not due to its rapid elimination by the urine, for if the ureters were tied and the drug was allowed to remain in the tissues there was no increase in toxicity. The loss of toxicity was probably due to the formation of a firm proteid compound of morphine which was not easily broken up. The fact that morphine could not easily be removed from the urine by the acetic and ethylic ether process in the presence of sodium bicarbonate supported this view of a combination of a proteid and the alkaloid. In future experiments Dr. Sharp intended to digest the morphine laden urine with pancreatine and sodium bicarbonate and then to try to remove the morphine by the ethers. Going on to speak of kino, rhatany, and catechu he detailed some experiments which he had made with compound kino powder extending over long periods. The drug was given in five-grain doses in capsules before meals four times a day. The evacuations which previously had been dark, thin, watery, and frequent, now became pale, gluey, and less frequent. The motions were treated with absolute alcohol and examined after two days' maceration. The alcoholic extract on being examined was found to give no tannin or gallic acid reaction. The alcohol only appeared to dissolve the colouring matter of the kino (kino red). This body had lost its astringency. After some weeks' maceration the absolute alcohol was found to have precipitated the proteids and the tannin (kinoin) of the kino was taken up by the alcohol. This tannin was only feebly astringent. It gave a reaction with ferric and ferrous salts. The urine gave no reaction with the combined iron salts, so it appeared that the drug when given in small doses only acted locally by forming a coagulum with the proteids, &c., and as it did so it gradually lost its astringency. This coagulum could only be broken up after prolonged maceration in alcohol. Calomel was next dealt with. The drug was found to be free from the perchloride when first obtained, but in from six weeks to two months it gave the reaction for the persalt. By experiment it was found that this change could be produced rapidly by digesting the calomel with cat's stomach—in several hours. This action might explain why calomel acted so energetically and in small doses in flesh-eating animals. In human beings the salt might act energetically or not at all and much depended on the condition of the stomach at the time as to pepsinogen and acid. The purgative action might be a reflex one, as where the stomach contained much ferment and acid vomiting was set up, peristalsis followed and the contents of the canal were evacuated. Calomel, however, did not always act as a persalt. It might be transformed into a soluble mercurous proteid salt. The experimental evidence pointed this way, for when calomel was digested with active saliva or with fresh extract of calves' pancreas a solution was obtained which could be dialysed through parchment and passed through filter paper and when so treated and examined it gave a black precipitate with caustic potash, a green with dilute potassium iodide solution, and reacted to the electrolysis test. These tests proved the presence of a mercurous salt and of a soluble mercury salt.—Dr. Churton, Mr. T. H. Fox, and Mr. C. Richardson took part in the discussion and Dr. Sharp replied.—Dr. Bedford Pierce read a paper on the Treatment of Atonic Dilatation of the Stomach. The principal features of the treatment which he had adopted in a very severe case were the continuous application of heat and the persistent administration of food without restriction of solids or liquids. The treatment was introduced into this country by Dr. T. Taylor of Ealing and came from Switzerland where it was practised by Dr. Stendall. The patient should be placed under favourable conditions as regarded rest and freedom from worry and the recumbent position should be insisted upon for the first week or two. He should attempt no work and at first should not read or write. Stimulants, tea, and coffee were prohibited. No drugs of any kind were given. The heat was applied by relays of hot-water bottles day and night. The diet should be liberal, consisting largely of milk, eggs (yelks only), meat of all kinds (including pork), fresh and stewed fruit, macaroni, and farinaceous foods. Food should be taken and persevered with regardless of discomfort. A case was related in which dyspepsia and constipation had existed for 20 years and in which frequent attacks of colic had resulted in abandonment of work. The patient had had the best medical advice, had been to the Cape, had spent five weeks in a nursing home, and had taken complete rest for three months, but all without benefit; he had become profoundly emaciated. In the course of three months' treatment he gained three stones in weight, the constipation disappeared, and the stomach, which had previously reached below the umbilicus nearly to the crest of the ilium, retracted to its normal position. In discussing the merits of the treatment Dr. Pierce suggested that the heat promoted more efficient peristalsis and that the rest enabled the patient to digest more food than had been possible before. He deprecated the use of concentrated foods but considered ordinary food with an abundant indigestible residue without any restriction of liquids or solids the proper diet for atonic dilatation, provided there was no sign of ulcer or gastritis.—Dr. J. E. Eddison, Dr. Churton, Mr. S. Walker, Dr. A. Mantle, Mr. H. Littlewood, Dr. A. Christy Wilson, Dr. F. W. Eurich, Mr. R. L. Knaggs, and Mr. Richardson joined in the discussion and Dr. Pierce replied.—The following officers were elected for the session 1903-04:—President: Mr. Richardson. Vice-Presidents: Dr. A. Bronner and Mr. Ward. Treasurer: Dr. Eddison. Librarian: Dr. A. G. Barrs. Auditor: Dr. C. M. Chadwick. Committee: Dr. J. Gordon Black, Dr. W. A. Evans, Mr. E. Roberts, Dr. A. H. Bampton, Mr. W. Thompson, Dr. J. W. H. Brown, Dr. J. G. E. Colby, Dr. S. M. Hebblethwaite, Mr. J. H. Woods, Mr. Irving, Dr. G. I. Swanson, Mr. J. J. Pickles, Mr. Edward Ellis, Mr. H. de C. Woodcock, and Mr. Michael A. Teale. Honorary secretaries: Dr. E. F. Trevelyan and Mr. Knaggs.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on May 1st, Mr. Rickard Lloyd, the President, being in the chair.—Mr. J. R. Lunn read notes of an obscure case of Intestinal Obstruction due to an Obturator Hernia. The patient, a widow, aged 61 years, was admitted into St. Marylebone Infirmary on Dec. 30th, 1902. She was very obese. The pulse, the respiration, and the temperature were normal, the tongue was clean, and the abdomen was not distended. She was slightly jaundiced. On the right side there was a reducible femoral hernia. Nothing was found on examination by the rectum or by the vagina. 24 hours after admission the patient began to vomit fæcal matter, the tongue was dry and furred, and the symptoms suggested some obscure cause of intestinal obstruction. On opening the abdomen the small intestines were found to be distended and covered with lymph. Towards the left iliac fossa the small intestine was found to be collapsed and apparently bound down to the pubes. During the examination fæces welled up from the left iliac fossa. A distinct fulness was then discovered in the upper part of the left thigh below Poupart's ligament. On incising this swelling a piece of gangrenous omentum was found which was ligatured and removed. The clamped ends of the intestines were then brought up into the abdominal wound, three inches of the ulcerated gut on each side of the perforation were removed, and a Murphy's button was introduced. The abdominal cavity was washed out with saline solution and the wound was closed with silkworm gut. The operation lasted two hours and the patient died a few hours later from peritonitis and cardiac syncope.—Mr. E. Percy Paton

and Mr. G. Twynam discussed the case.—Dr. J. E. Squire continued the adjourned discussion of his paper on the Modes of Cure in Pulmonary Tuberculosis. After pointing out that the arrest or the advance of the disease was determined by the nature of the reaction changes in the tissues and so depended upon what they called the resisting power of the tissues, Dr. Squire said that the aim of modern treatment was to strengthen this resisting power and to kill or to remove from the body the causative micro-organisms. Thus their efforts might be directed towards strengthening the resisting powers of the cells and tissues of the body, so enabling them to withstand and to destroy the bacilli, or they might attempt to destroy the bacilli by germicide and antitoxic remedies. A knowledge of pathology assisted them in determining which mode of attack to select. One of the early results produced in the lung by the tubercle bacillus was to block up not only the alveoli but also the blood and lymph channels in the affected area. Thus, blood-borne antiseptics, as well as any that might be inhaled, were prevented from reaching the stronghold of the bacilli. Such treatment would, however, destroy any bacilli that escaped from the focus of the disease and thus prevent extension. The antiseptics used, however, could only be of moderate strength. Antitoxin treatment was looked upon by many as the main hope of the future, but there was a wide difference between the short sharp fight with the diphtheria bacillus and the prolonged struggle in tuberculosis. Tuberculin seemed to be dangerous; it appeared to increase the rapidity of the tuberculous process, and in the majority of cases safety was to be sought in the slower processes which led to the formation of fibrous tissue. X rays, sun baths, and electric currents had been used without any convincing measure of success. For the arrest of the disease the alternative principle of treatment by assisting the tissues of the body to resist the bacilli offered better hope of success. Of the hygienic requirements fresh air claimed primary attention, but certain other aids to hygienic treatment deserved consideration. Among the processes which tended to limit the action of the tubercle bacilli an increase in the wandering cells was important; thus anything which tended to leucocytosis might have a very beneficial effect. With this object cinnamic acid, hetol, and nuclein had been used. The excess of proteid food which was taken in forced feeding was also said to produce leucocytosis. Food was certainly required in full quantity, but it was its assimilation which was important and it might be necessary to remedy a faulty digestion. With regard to cough it was generally better to prescribe expectorants to make the cough effective than sedatives to check it. In conclusion Dr. Squire considered that drugs should be used as auxiliaries only to help the patients to get the fullest benefit from hygienic treatment.—Mr. R. W. Lloyd mentioned a case in his experience in which alleviation of symptoms, and to some extent of the signs, of phthisis had occurred as a result of the patient keeping her windows widely open day and night. At the same time the discovery of scars in the lungs post mortem had shown that cure used to occur before the value of open air was recognised.—Other members continued the discussion and Dr. Squire replied.

LARYNGOLOGICAL SOCIETY OF LONDON.—A meeting of this society was held on May 1st, Dr. P. McBride, President, being in the chair.—Dr. Atwood Thorne showed a case of Epithelioma of the Larynx which had been previously shown in January. The interest of this case was that a certain amount of improvement had taken place under the administration of potassium iodide and mercury. When the patient was seen in January last the left cord was absolutely fixed and there was a growth of the left arytænoid extending to the left arytæno-epiglottic fold. Under this treatment the left cord had recovered a fair degree of mobility and the continuous growth had shown as two growths with an intervening space and a submaxillary gland had become distinctly smaller. Latterly, however, the case had taken an unfavourable course and the left cord had become almost immobile and ulceration had occurred.—Dr. W. H. Kelson showed a case of Lupus of the Fauces in a female, aged 22 years. The appearance presented was very suggestive of a secondary syphilitic lesion, but the fact that there were apparently no other signs of syphilis, either primary or secondary, that the patient had been treated for five months with anti-syphilitic remedies with no benefit and that latterly some improvement had resulted from the administration of arsenic led Dr. Kelson to form the opinion that the disease was lupus.—Mr. R Lake exhibited (1) a case of Ulceration of the Tonsil involving the Posterior Faucial Pillar in a woman, aged 35 years; (2) a microscopical specimen of a large Papilloma in the posterior aspect of the cricoid cartilage which was the apparent cause of obstruction in a case of carcinoma of the upper end of the œsophagus; and (3) a Papilloma from the region of the inferior turbinal with absorption of the internal antral wall.—Dr. J. Donelan showed a case of Subglottic Thickening of the Vocal Cords in a man, aged 38 years (? pachydermia).—Mr. E. B. Waggett showed a case of Primary Tuberculosis of the Nasal Septum in a man, aged 35 years (with microscopical specimen). The patient had come under observation complaining of pain in the nose and frontal region and of nasal discharge, and exhibiting an extensive area of ulceration an inch in diameter. A specimen taken from the edge of the ulcer showed tuberculous tissue with well-developed giant cells. Examination of the chest revealed merely increased vocal resonance at the right apex behind and in front. There was no history of cough or of hæmoptysis. The symptoms had existed for two years.—Dr. E. Furniss Potter exhibited a case of Swelling in the Postnasal Space in which the diagnosis lay between syphilis and malignancy. It was impossible to obtain any history of symptoms—sore-throat and dysphagia—dating further back than three weeks previously.—Dr. J. Dundas Grant showed a case of Chronic Laryngitis with Papillary Thickening of the Vocal Cord.

ROCHDALE AND DISTRICT MEDICAL SOCIETY.—A meeting of this society was held on May 6th, Dr. J. Melvin being in the chair.—Dr. J. A. Ashcroft made some remarks on Puerperal Eclampsia. He considered it to be the best practice not to induce labour but to rely on medical treatment.—Mr. G. W. Malim invariably had recourse to bleeding in eclampsia, and out of a considerable experience he had never had a fatal case.—Dr. A. Wallace also spoke of the efficacy of bleeding.—Mr. H. H. I. Hitchon gave an account of a rapidly fatal case of Hodgkin's disease. A well developed boy, aged 12 years and nine months, was first seen on Feb. 23rd, supposed to be suffering from mumps. The swelling had been first noticed four weeks before and had increased. The boy felt well but easily became tired. The family history was good. The upper cervical glands on both sides were much enlarged, the lower cervical glands were enlarged to a less extent, and the axillary and femoral glands were slightly enlarged. The glands were comparatively soft, neither painful nor tender and not matted together. The spleen projected one inch below the costal margin, the liver was not enlarged, and the bones were not tender. The patient was distinctly anæmic. He became rapidly weaker and four days later was confined to bed. Two days later still he was very weak and almost colourless, his evening temperature being 103° F. The glands were considerably larger and the spleen reached to midway between the costal margin and the umbilicus. The abdomen was large but not tender. The patient vomited small quantities of blood and submucous hæmorrhages were observed on the palate and tonsils. The breath was foul. On the next day the cervical glands had still further increased and the spleen had enlarged another inch. On the following morning vomiting of large clots of blood occurred, followed by fæcal matter, and death took place. The total duration of the case was five and a half weeks. The blood was not examined and a post-mortem examination was not obtained.

KIDDERMINSTER MEDICAL SOCIETY.—A meeting of this society was held on May 1st, Mr. J. Lionel Stretton, the President, being in the chair.—The President showed a number of specimens and patients, among the latter being a woman, aged 49 years, on whom he had performed Gastro-jejunostomy for Malignant Disease of the Pylorus; the approximation was accomplished by means of a Murphy's button which had not at the date of the meeting (one month after the operation) been passed. The patient had made a good recovery, had gained 8 pounds in weight, and was taking ordinary diet well.—Dr. B. Addenbrooke read notes of a case in which he had operated for Gall-stones. The patient was a woman, aged 54 years. On opening the abdomen the omentum was found to be much thickened and the gall-bladder was apparently empty and contracted. The wound was closed. One month later the wound gave way and several gall-stones were evacuated; these he considered had been imbedded in the thickened omentum, having previously ulcerated through the gall-bladder.—Dr. Addenbrooke also

showed a case of Progressive Muscular Atrophy in which the right hand and forearm were chiefly affected; all the muscles of the right hand and thumb were much wasted. The muscles of the forearm had improved under galvanism. The patient was a man, aged 25 years.—Mr. A. C. Oldham read a paper on Some Diseases of the Naso-Pharynx.—A discussion followed.

# Reviews and Notices of Books.

*Diseases of Women: A Clinical Guide to their Diagnosis and Treatment.* By GEORGE ERNEST HERMAN, M.B., F.R.C.P. Lond., Obstetric Physician to, and Lecturer on Midwifery at, the London Hospital; Examiner in Midwifery to the University of Cambridge and the Royal College of Physicians. New and revised edition with upwards of 250 illustrations. Demy 8vo. London: Cassell and Co. 1903. Pp. 884. Cloth, 25*s.*

AS some six years have elapsed since the appearance of the first edition of this Clinical Guide to the Diseases of Women we are glad to see that Dr. Herman has brought out a new and revised edition. It is true that very little alteration or emendation has been found necessary, but that may well be taken as a proof of the excellence of the work. On page 83 a new section has been added upon the surgical treatment of chronic ovarian pain. The author states that in very bad cases the vicious circle of effects which occurs in such patients can at times only be broken by removing the ovaries. The results of ignipuncture are disappointing and resection of part of the ovaries is often followed by the return of the pain, so that in extremely bad cases the removal of one or both ovaries is the only thing that brings relief. Such an operation is obviously only justifiable as a last resort.

In considering the surgical treatment of cancer of the cervix Dr. Herman lays stress upon the importance of avoiding inoculation of the wound surfaces with portions of the cancerous growth. He advises as a preliminary step that the growth should be thoroughly curetted and cauterised. He then recommends the method of performing vaginal hysterectomy with hemisection of the uterus practised by Doyen. We are glad to see that the more surgical method of ligation of the broad ligaments has been substituted for the use of pressure forceps. We do not, however, agree with the author in his practice of hemisection of the uterus in performing vaginal hysterectomy for cancer of the cervix. If the growth mainly involves the lower part of the cervix no doubt it is possible completely to curette and to cauterise it; but if, on the other hand, it has begun in the upper part of the cervix and the external os is not much involved, then it is almost impossible completely to curette the growth away or to cauterise thoroughly the whole of the raw surface left. In such a case hemisection of the uterus is extremely likely to expose a fresh portion of the growth from which infection of the wound surfaces may well occur. Doyen's method of splitting up the uterus is peculiarly applicable to cases of fibroid tumours of the uterus and cases of hysterectomy for chronic pelvic inflammation, but it is, we think, both unnecessary and unsuitable for most cases of carcinoma of the cervix. The section upon the surgical treatment of fibroid tumours of the uterus has been almost entirely rewritten. Dr. Herman recommends amputation of the body of the uterus, commonly known as "supravaginal abdominal hysterectomy," and when performing panhysterectomy he thinks that the best method is that of Doyen. Myomectomy he considers the ideal operation when the patient is young and, failing this, one or other of the varieties of hysterectomy.

The book is one of the best clinical works upon gynæcology in the English language, and the present edition fully maintains the high standard of the first. There is a familiar error which we are surprised to see in a book by so careful an author as Dr. Herman—viz., Gärtner for Gartner. In Figs. 197 and 198, copied from Mr. Alban Doran's book on Tumours of the Ovary, Fallopian Tube, and Broad Ligament, the "umlaut" is correctly omitted. We had hoped that in a new edition many of the very crude and inartistic illustrations would have been replaced by others more worthy of the letter press. This has unfortunately not been done, although a few new figures have been added.

*Surgical Anatomy: a Treatise on Human Anatomy in its Application to the Practice of Medicine and Surgery.* By JOHN P. DEAVER, M.D., Surgeon-in-Chief to the German Hospital, Philadelphia. Vol. III. (pp. 816): Abdomen, Pelvis, Thorax, and Lower Extremity. London: Rebman Limited. 1902. The three vols., with 499 plates, price six guineas net.

THIS is the third and concluding volume of this exhaustive and bulky treatise. Like the first two volumes it is profusely illustrated, the number of full-page plates in this volume being no less than 178. As all the drawings have been prepared from dissections specially made for the purpose of this treatise the amount of labour expended both by dissectors and artists must have been immense and the author must be almost unreservedly congratulated on the result of his labours. There is, however, one point in connexion with the illustrations which calls for comment: there is a most striking and unnecessary difference in the scales to which some of the pictures have been drawn. A comparison, for instance, of the representations of the kidneys, liver, and spleen gives an altogether erroneous idea of the relative sizes of those organs, the bulk of the spleen appearing far greater than that of the other organs mentioned. The size of the heart, too, varies quite unnecessarily in successive representations of it. These variations are the more misleading since the scale to which the figures are drawn is never indicated.

In dealing with applied anatomy, as distinguished from anatomy proper, the difficulty is to know where to draw the dividing line. The author of the present work has evidently encountered the same problem. He has adopted the plan of giving anatomical descriptions which, when compared with those usually met with in works of this kind, are unusually full. The result is that the work appears to contain much more of ordinary anatomy than of its application. At the same time, the fact that anatomy is dealt with so fully gives rise to a disposition to criticise the book from a purely anatomical standpoint, which, perhaps, is hardly fair. Be that as it may, the fact remains that visceral anatomy has made huge strides in recent years, particularly since the adoption of formalin and other methods of hardening the viscera *in situ*. Now the bulk of the volume under review is devoted to a consideration of the anatomy of the abdomen, thorax, and pelvis, and we do not find overmuch of this recent knowledge reflected in the text. This is possibly because the preparation of the volume was commenced some time ago, but at the same time it is to be deplored as detracting in a measure from the value of the book.

Just as it is difficult to separate applied from systematic anatomy so, on the other hand, it is difficult to separate it from surgical technique. The author has been fairly successful on this score, although we find in places details which appear to belong more properly to a treatise on surgery. For instance, we find minute directions given for the performance of vaginal and abdominal hysterectomy and other operations together with details on suturing which seem quite unnecessary and out of place. What is the aim of the book? We gather from the number of illustrations, from the character of the anatomical descriptions, and especially from the minute directions given for *dissection*, that the treatise is intended to teach the surgeon anatomy as well

as some of its practical applications. All this should surely be unnecessary if anatomy is learned in its proper place and at the proper time—we mean in the dissecting-room during the earlier years of studentship. If it is not then learned no series of illustrations, however excellent they may be, and no book descriptions, however full, can adequately supply the deficiency. We much doubt if such a sumptuous volume as this will ever find its practical use in the dissecting-room. Despite the points we have criticised, the book is a monumental production and possesses a wealth of detail. The amount of work lavished on it has evidently been very great. Its usefulness is enhanced by the presence of a very complete index in which, by the use of heavy-faced type, the plates illustrating each organ and region are at once indicated. Curiously enough, we could find no plate indicating the position of the ovary.

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*Diseases of Women.* By E. C. DUDLEY, A.M., M.D. Third edition, revised and enlarged. With 474 illustrations, of which 60 are in colours, and 22 full-page plates in colours and monochrome. London: Henry Kimpton. 1903. Royal 8vo, pp. 761. Price 21*s.* net.

THE appearance of a third edition of Dr. Dudley's work upon the Diseases of Women is a proof that it has met with appreciation from students and practitioners. The author has made numerous corrections and alterations and has very thoroughly revised the work. Many of the chapters have been rewritten and others have been recast and transposed to other parts of the book. A large amount of the letterpress has been arranged in the form of tables and parallel columns with a view to make it more useful to students for class work and to practitioners for reference. Among the most interesting additions are the figures illustrating many of the major and minor gynæcological operations. For example, the consecutive steps in hystero-myomectomy are shown in 12 drawings, salpingectomy in five drawings, vaginal hysterectomy in 15 drawings, ovariotomy in eight drawings, and curettage in five drawings. The total number of illustrations has been increased by 21 and a considerable addition has been made to those in colours and to the full-page plates. Drawings illustrating operations are undoubtedly useful but at the same time they tend to minimise the difficulties of technique and hardly ever give a faithful representation of the conditions as they are met with in actual practice. A good instance of this is seen in Plate XI., representing ligature of the broad ligament in vaginal hysterectomy. The device of using an ordinary needle held in a needle-holder and passed through the broad ligament blunt end first is undoubtedly ingenious and should prove useful at times. Dr. Dudley does not approve of the more radical methods of removing the uterus for malignant disease recommended by many modern surgeons. As he points out, removal of the peri-uterine glands and the lumbar glands and excision of the broad ligaments close to their base undoubtedly add to the traumatism, are often attended with much difficulty, and require a very prolonged operation attended with a corresponding increase in the amount of shock.

The method of placing the chief diagnostic features of different conditions in tables is undoubtedly useful but must always be taken with a certain amount of reservation. For instance, we find that the chief distinctions in the diagnosis of a case of hydramnios from an ovarian cyst are given as follows. In hydramnios the student is told that there is evidence of pregnancy, rapid development of the tumour, ballottement, and symmetrical distension of the abdomen; while in a case of ovarian cyst there are no signs of pregnancy, a slow development of the tumour, no ballottement, and unilateral distension of the abdomen. He is not told that in many cases of hydramnios the evidences of pregnancy are difficult to obtain, nothing is said as to the method of obtaining ballottement in such a case, and the statement that an ovarian tumour sufficiently large to be mistaken for hydramnios causes unilateral distension of the abdomen is more often found in a text-book than confirmed as a clinical fact at the bedside. Many of these tables are, however, exceedingly good and should prove most useful to the student in summarising his knowledge.

The work has been considerably enlarged and improved since the appearance of the first edition and is now a very excellent manual of its kind. The want of proportion in the amount of space allotted to various subjects still seems to us to exist but to a much less extent than it did. We are glad to see that the chapter on Pelvic Massage has been considerably curtailed and partly rewritten. We still think that too much detail is given in the treatment of injuries to the pelvic floor and to the cervix, but no doubt we are influenced by the views held in this country as to the importance of such traumatism. The illustrations, especially some of the coloured ones, are very good, but many more of the original ones might well have been omitted or replaced by better drawings.

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## LIBRARY TABLE.

*Book on the Physician Himself.* By D. W. CATHELL, M.D. Philadelphia: F. A. Davis Co. 1902. Pp. 411. Price $2.50.—This is the eleventh edition of the original work and has been revised by the author and his son Dr. W. T. Cathell. It is written in a cheery, breezy style and shows wide reading, for it swarms with quotations. Be this as it may, it contains many valuable pieces of advice upon such subjects as quackery and the practitioner's duty to his patients, to his fellow practitioners, and to himself. Allowance being made for the differences in social customs which exist in Great Britain and the United States, practitioners, and especially those just entering practice, will find many valuable hints in this book.

*Rate-Supported versus Voluntary Hospitals.* By J. G. CRAGGS, M.V.O., F.C.A. London: The Scientific Press, Limited. 1903. Pp. 37. Price 1*s.* 6*d.* net.—This pamphlet is an expansion of an article by Mr. Craggs which appeared in the *Times* of April 7th and upon which we commented in our issue of April 11th, p. 1044. We have nothing to add to what we then said except that in the light of the figures and facts, which are quoted more fully in the pamphlet than they were in the article, we should say that if every subscriber to the Hospital Sunday and Saturday Funds were to read and to digest both facts and figures the amounts received by the two funds in question would be doubled.

*The Annual Charities Register and Digest, 1903.* London: Longmans, Green, and Co. Pp. cxviii.–734. Price 5*s.* net.—This is one of the annuals which come out year after year at a standard pitch of excellence and hence the reviewer's work consists in praise. Mr. Loch's introduction is in itself a "Summa" of almsgiving. Every kind of charitable organisation or institution is classified in the book before us and therefore no one has any excuse for giving to undeserving charities. We think, as we have said upon previous occasions, that some of the "spiritual institutions" might be eliminated from a book dealing with charities. For instance, neither the Church Association nor the English Church Union has any right to be called a charity and so with other institutions which we find in the section of "spiritual."

*The Victualling of the Royal Navy: Past, Present, and Future.* By ALEXANDER TURNBULL, M.D. Edin., Inspector General of Hospitals and Fleets (retired). London: Elliot

Stock. 1903. Pp. 31. Price 1s.—This little pamphlet is compiled "from State papers, historical documents, official sources, &c., and a seventeenth century private diary not hitherto published," and is an extremely interesting work. The victualling of the navy in Georgian, and even in early Victorian, times was by no means above reproach, but the new scale of victualling which comes into operation this year seems very good. Readers of Marryat will remember Mr. Chucks's opprobrious epithet of "burgoo swilling" applied to the unhappy cooper who had lurched against him. "Burgoo," or "bargow," is described by Surgeon Thomas Trotter, M.D., R.N., 1792, as thick gruel made of oatmeal. Oatmeal, however, no longer forms part of the ordinary ration but is retained for stokers to be mixed with water as a drink.

*The City of London Directory, 1903.* London: W. H and L. Collingridge. Pp. 1194. Price 12s 6d.—In the preface to this directory, which is the thirty-third annual edition, it is stated that it "is the only annual volume containing valuable and exclusive information in regard to the City of London, the Corporation, the Livery Companies, and other public bodies." With this statement we acquiesce, as we think that in this respect the Directory is a valuable book of reference, but we consider that the remaining portions could be improved. We notice, for example, that a firm of well-known carriers is called Pickford's (lim.), that the British Photo-Engraving Co. is called the British Photo-Engineering Co., that in one case at least "Verulam" is spelled "Verulum," that in one instance at least the old address of a firm is given from which they removed some months ago, and that in the Street Directory "Bishopsgate-street Without" is continued on the next page as "Bishopsgate-street Within." We may also point out that THE LANCET is published on Fridays and not on Saturdays, as stated in the Newspaper List. On the whole, however, the present issue is an improvement on that of last year.

*How and Where to Insure.* By CHARLES COX. London: Effingham Wilson. Pp. 125. Price 1s.—The greater part of Mr. Cox's useful work was contributed to the *Empire Review*, where he writes under the pseudonym of "Thrift." He appears to have an excellent grasp of his subject and to have written in the interests of the would-be insurer and not in that of any particular office. Therefore his deductions are the more worthy of consideration, and, in our opinion, cannot fail to be useful in guiding to the successful choice of a suitable office in any particular class of insurance.

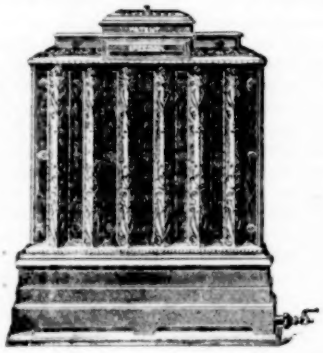
## JOURNALS AND MAGAZINES.

*The Medical Journal of the Italian Navy.*—The first issue of the *Annali di Medicina Navale* for the present year appears in the form of a double number owing, we are informed in a prefatory note, to the fact that some important and richly illustrated articles have taken more time in preparation than was anticipated. In order to compensate subscribers for the delay the editor consequently decided to publish the parts for January and February under a single cover and he has, moreover, endeavoured to improve the quality of the journal by making it respond more adequately to the labour of his collaborators and by rendering it more worthy of the sympathetic reception which is accorded to it by the medical public—foreign as well as Italian. So manifold and complex are the duties imposed on medical officers of the Italian navy that the editor would not have felt surprised had they entirely failed to furnish him with material. That some among them did supply him is an example of the utmost zeal and self-abnegation. Had they only the necessary time to collect and to arrange their clinical notes what a rich and useful harvest would be reaped by the *Annali*. The double number thus introduced contains several articles of merit evincing much labour, but there is nothing specially referable to the navy or to naval matters. A feature of the periodical consists in a review of current medical literature. The synopsis is not only copious but well arranged and reflects much credit on the compilers and translators.

# New Inventions.

## THE "SPEEDON" HOT-WATER RADIATOR.

THERE are one or two important advantages connected with the use of this appliance for warming apartments that are well worth attention. The apparatus consists in reality of a series of tubes communicating with each other and up and down which a rapid circulation of hot water is maintained. The heat of the water radiates readily into the room owing to the great radiating area which the stove presents. The surfaces of the columns are zig-zag, thus ~~~. The radiator which we tested contained almost exactly three gallons of water. The source of heat is an atmospheric gas-burner consuming, according to our observations, about 4½ cubic feet of gas per hour. We found that it takes a little over two hours to raise the water from ordinary temperature to the boiling point, that is to say, at the expense of rather less than 10 cubic feet of gas. All this time there is a steady emission of heat into the room. As a matter of fact,



when the water has reached to within a few degrees of boiling point the gas may be turned down, the water serving to distribute the heat of the gas flames in a uniform and regular manner. This principle of heating by means of gas is well adapted for bedrooms as there need be no danger of gas escaping or of objectionable fumes arising. Thus the gas may be lighted an hour or so before retiring and at the time of retiring the gas may be turned off altogether, when the radiator will continue to warm the room for some time and no anxiety need be felt as to gas fumes or as to the working condition of the burner. According to our experiments it takes quite four hours before the stove cools down to the temperature of the room again. A flue is provided to carry the products of combustion up the chimney, but as we have already said the stove requires no attention after the gas has been turned out, it then continuing to exert a marked warming effect upon the room. The appliance is thus economical, effective, and safe. The Speedon radiator is manufactured by the Coalbrookdale Company, Limited, of 141, Queen Victoria-street, London, E.C.

## THE BROWNLOW FIELD SERVICE FILTER.

THIS filter has been designed especially for transport purposes. It may easily be packed in a wicker basket which can be strapped to the pack saddle. The dimensions of the basket are 2 feet 3 inches in length, 14 inches in width, and 10 inches in depth. A glance at the accompanying illustration will show that the filter consists

practically of three sections. The filtering-tube is contained in a copper jacket which communicates with a clarifying filter immediately above a semi-rotary pump. The water enters the hose at the bottom by the suction caused by a few strokes of the rotary pump and then passes into the clarifying cylinder which, as shown in the illustration, is grasped by the left hand of the operator. The clarified water is then discharged into the sterilising filter, germ-free water escaping ready for drinking purposes at the two pipes shown. The clarifying cylinder contains an inside case of gauze and two clarifying bags. The sterilising

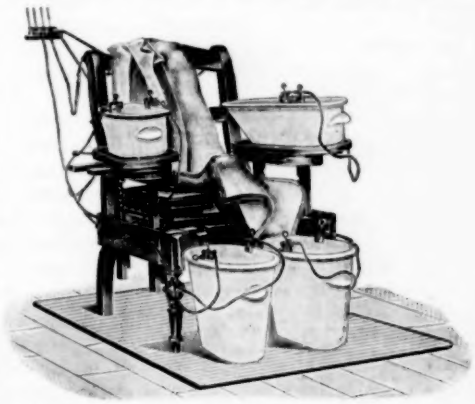
cylinder contains an unglazed porcelain filtering tube or candle which, according to the experiments of Professor G. Sims Woodhead and Dr. G. E. Cartwright Wood, prevents the transmission of disease germs when worked under proper conditions, so that it was concluded that this filter would protect against the transmission of water-borne disease. Excellent attention, we find, has been paid to details, bearing in mind the special uses of this filter. It is compact, very easily put together, and all the parts are well made and of solid construction. One field-service filter is sufficient, it is stated, for the needs of a unit of 100 men and one man at least in each section is expected to superintend its management. The rate of pumping should not exceed 20 to 35 strokes per minute and in the event of the rate of filtration becoming slow a new clarifying bag should be introduced and, if considered necessary, a new cylinder also. Instructions to this effect are supplied with each outfit. The manufacturers are Messrs. Slack and Brownlow of Gorton, Manchester.

## "OCCILANA" CLOTH.

THE manufacturers of "Occilana" cloth have afforded us an opportunity of examining it at various stages in its preparation and samples of fabric have been submitted to us representing first the unscoured fleece with the natural oil retained, secondly the yarn spun ready for weaving, and finally the finished material. Chemical and microscopical tests throughout determined at once that the fabric is all pure wool. The wool is said to be produced entirely in the west of England. Further, no evidence was obtained of the presence of irritating substances in the form of injurious dye stuffs or of any residue of objectionable bleaching agents. The material is warm and comfortable and porous, though shower proof. It has been pronounced a cloth material of good quality by a cloth expert. The cloth may be had in a variety of patterns and is supplied by Messrs. S. Fisher and Sons of 215, 217, and 219, Regent-street, London, W.

## A FOUR-CELLED ELECTRIC BATH.

THE four-celled electric bath, devised by Dr. C. E. Schnée of Carlsbad and shown in the illustration, presents no intricate complications either in the arrangement of its parts or in its therapeutic use. It may be said to consist of two principal portions—namely, (1) an armchair capable of adjustment in a variety of positions; and (2) a set of four basins or small baths, two of which stand on the floor, while the other two stand on the arms of the chair. The patient uncovers only his arms and lower legs and sits in the chair with each of these limbs in one of the baths. The baths are filled with water or medicated solutions, and in each of them two carbon electrodes dip into the liquid. When the patient's limbs are immersed it is obvious that a current may be sent through his body in either direction from any bath to any other one, or even from any one to the other three collectively, so that a diversity of combinations is offered for the choice of the medical attendant. These variations of direction can be made instantly by means of moveable plugs fitting into holes in a switch-board, in addition to which arrangements are provided for measuring and regulating both the quantity of the current (in milliampères) and its intensity (in volts); these two conditions may also be variously



combined, so that a current of small quantity may have a high intensity and *vice versâ*. In each of these baths the effective electrode is of course not the carbon conductor but the liquid contained in the bath. The current is therefore applied to the whole of the immersed surface, which for the upper limb might amount to 1200 square centimetres (186 square inches) and for the lower limb might amount to 1400 square centimetres (217 square inches). For many therapeutical purposes it is desirable to have electrodes of considerable size and the above-mentioned areas of skin are much greater than those of the metallic electrodes usually employed. Galvanic, faradic, or sinusoidal currents may be used; an alternating current may be previously changed into a direct one by means of a transformer. Currents having a quantity of from two to about 30 milliampères and an intensity of from 10 to 45 volts may be employed. Cataphoresis, or the introduction of medicinal substances into the system by electrical transference through the skin, can be easily accomplished by filling the baths with the proper solutions. Dr. Schnée states that from the year 1896 to the end of 1902 he has treated 2577 patients with this apparatus.

IMPROVED CONTINENTAL SERVICES.—By a new express service passengers travelling by the Harwich-Hook of Holland Royal British mail route now arrive at Berlin much earlier than hitherto; leaving London (Liverpool-street Station) at 8.30 P.M. Berlin is reached at 6.43 next evening. Corridor carriages and restaurant cars run between the Hook of Holland and Berlin. By this new service communications with other north German towns, with Saxony, Austria, Russia, and Sweden have been much improved and accelerated. Passengers from the northern and midland counties of England leaving in the afternoon can travel directly to Harwich alongside the steamers, thus saving the trouble and expense of crossing London. A dining-car and through corridor carriages run between York and Harwich, also through carriages to and from Manchester and Liverpool *viâ* Lincoln, Birmingham, London and North-Western and Midland Railways, *viâ* Peterborough. On the return journey to England a corresponding saving of time will be effected by the new service.

# THE LANCET.

*LONDON: SATURDAY, MAY 16, 1903.*


## The Address in Medicine at the American Medical Association.

IT must always be interesting to the members of any profession to be put in a position which enables them to contemplate work kindred to their own as it is influenced or modified by conditions of society somewhat differing from those of which they have experience. On this account, even if on no other, we should welcome the Address in Medicine lately delivered by Dr. ANDERS of Philadelphia at the meeting in Chicago of the American Medical Association—an address purporting to be on "Social Conditions in America in their Relation to Medical Progress and Disease." The title is an ambitious one and seems to justify expectation of a very comprehensive survey of the fields of medicine, of pathology, and of therapeutics. We cannot say that this expectation is altogether fulfilled; for, in truth, a large part of the address is somewhat vaguely declamatory and, although full of sounding phrases, seems to leave us destitute of any very definite information upon the subjects with which it may be presumed to deal. We are told, indeed, that "our possession of unclassified facts is increasing with uncomfortable rapidity," but we receive a very slender modicum of information as to the general nature of these facts or as to the precise directions in which it is expedient that their classification should be attempted. We are told, again, that "epoch-making discoveries and important, far reaching scientific effort *is* justly the boast of the American profession"; but the discoveries in question are not described in detail nor is any reason given for assuming that "far reaching scientific effort" is in any way peculiar to America. The discovery of the anæsthetic properties of ether might, indeed, be called "epoch-making" by any who were so left to themselves as to use the term at all, but where are the rest? It is well known that SHAKESPEARE was an American citizen, but can the same claim be substantiated with regard to HARVEY, or JENNER, or PASTEUR, or LISTER? These are men whose discoveries, if they have not made epochs, have at least marked them and whose names will still be regarded with veneration by their countrymen in future generations, although not, we trust, with boastfulness—a state of mind antipathetic to science and calculated rather to prevent than to promote discovery.

With regard to the general social conditions of America, as they bear upon the preservation or the restoration of health, the address gives us very little precise information, and it may well be that the author has thought it unnecessary to dwell upon facts which were more or less familiar to his audience. It is, indeed, said that "the universal spirit of haste has taken possession of our professional life," and that "the cure must result from a readjustment of the home life and habits of the professional and other classes." This would mean, we are told, "a return from our present-day restlessness and rush to a quieter period, to a 'Mansfield Park,' with its charm of quiet village life; a return to a normal life with natural intellectual tastes, and to calm, patient, original observation that fosters vital force and successful endeavour." Surely the placid spirit of JANE AUSTEN would be perturbed if it were made acquainted with such a description of the state and surroundings of MRS. NORRIS and the BERTRAMS. The title of the address led us to hope for information upon the relations in America between the medical profession and the large classes of people to whom the payment of adequate medical fees would be impossible. Our readers know only too well the difficulties which the problems hence arising offer to older societies and the slender amount of success which has hitherto been achieved in dealing with them. In England the medical officers under the Poor-law are very inadequately paid and the whole system of club and dispensary practice is riddled by scandalous abuses for which, so far, neither reason nor agitation has succeeded in suggesting any sufficient remedy. In Germany matters are even worse. A letter lately appeared in the *Times* in which the writer gave a highly interesting account of the effective manner, as he regarded it, in which the problem of medical attendance on the labouring classes had been solved in that country and in which he said that the German workman had determined to banish squalid poverty from his class. By his subscriptions noble hospitals and convalescent homes had been erected and were maintained and generally a sort of golden age in relation to sickness had been inaugurated. It has since appeared that the physicians employed by the societies into which German industry has been organised for the accomplishment of these wonders have been ground down to starvation point, that their remuneration has been at the rate of about twopence a visit, and that they have at last formed a counter organisation which threatens a universal "strike" of the medical profession against the societies if more reasonable terms are not previously agreed upon. The same question, although possibly under a slightly different form, must of necessity present itself in America, and it would be a matter of extreme interest to learn whether any solution of it has been reached. The very absence of any reference to the subject, in an address bearing the title which we have quoted, seems at least to show that the friction hence arising cannot be so great in America as it is in this country or in Europe.

When Dr. ANDERS passes away from questions of a very general character it is to call attention to certain phenomena in relation to disease which seem to us to be of great significance. He dwells upon a considerable recent increase in cancer, affections of the kidneys, and fatty and fibroid degenerations. Coincidently, he tells us, with the advent of epidemic influenza, there has been a heavy death-rate in Philadelphia from lobar pneumonia; and he gives a table showing the results of post-mortem examination in 275 cases of death attributed to this cause which occurred in the Philadelphia Hospital. Of these, 250, or about 90·9 per cent., showed cardio-vascular lesions, principally chronic

endocarditis and general atheroma of the vessels. Chronic interstitial nephritis was noted in 52·7 per cent., chronic parenchymatous nephritis in 18 per cent., and acute nephritis in 13·8 per cent. It is highly probable, of course, that the pre-existing cardiac or renal disease may have been largely contributory to the fatal issue in these cases and that post-mortem examinations of a more general kind would have shown very different results. But these, such as they are, surely indicate a wide prevalence of the degenerations produced by alcohol and point to the extensive and far-reaching influence in the great cities of America of the agent which is, perhaps, the chief cause of premature mortality amongst ourselves. Dr. ANDERS does not himself offer any explanation of the facts which he records, but we can hardly be mistaken in the opinion that they justify an earnest endeavour on the part alike of philanthropists and of physicians to bring home a knowledge of the deleterious effects of alcohol to the classes which, in the present state of civilisation, are on the whole most liable to suffer from them.

## Back to the Land.

THE paper read by Mr. RIDER HAGGARD at the weekly evening meeting of the Royal Institution on May 8th presented to his hearers in a condensed form a very interesting portion of the facts and conclusions dealt with by him in his recently published work on "Rural England." Mr. HAGGARD applied the title of "Rural England" to his lecture also, but he intimated when he began that he could only treat certain aspects of so large a subject in the time at his disposal. The particular points to which he accordingly devoted his attention were principally those arising out of the debated question of small holdings. Mr. HAGGARD discussed the prevalence of these in comparatively recent days and put forward evidence to show that in times of which no definite records are available small holdings were successfully owned by men who, whether they lived hard lives or not, at all events got a living out of a few acres of land that was their own. With the practical possibilities of small holdings in modern times he dealt at some length; after pointing out the extent to which small holdings have disappeared, he turned to the question as to how they might be re-introduced. The personal observation which Mr. HAGGARD has brought to bear upon the topics which he has now studied for a considerable time with great energy and industry enabled him to enforce the various views which he put forward by practical illustrations of value, and he enjoyed the advantage of being a skilled narrator who could tell his story so as not only to inform but to interest his audience. None will disagree with Mr. HAGGARD as to the importance of the matters that he discussed, both from the point of view of those who desire that our country should provide from its own soil a larger proportion of the food-stuffs which it consumes, and from that of those who regard with apprehension the crowding of the population into the towns, where neither the natural law of supply and demand nor legislation has yet obtained for them anything approaching adequate accommodation. Mr. HAGGARD spoke of the land and its interests as receiving little care from Government because those interests are divided and do not speak with any political voice, and he expressed the belief that now, more than ever in our history, they are vital to the welfare and safety of our nation. Of the physical results to the public health arising out of the flocking of the rural population to cities, where it fails to a large extent to find the comparative prosperity which it seeks, Mr. HAGGARD said: "It means that the character of the race is changing; it means that their physique is deteriorating; it means that fewer men of the best class are available for purposes of national defence ..... it means a new race of city-bred Englishmen the victims of various diseases which, it is alleged, kill them out within three generations. We know what country-bred Englishmen have done in the past and the height to which they have lifted their race and nation. Can so much be expected from their descendants if they are to be herded together in the most dismal and airless quarters of our great cities?" In conclusion, he confessed to feeling somewhat "lonesome" in the task which he has imposed upon himself of calling attention to the present position of rural England and its population. We may, however, express the hope that among those who study the results of his labours he will find some who will be struck with the practical possibilities of the remedies that he suggests. Those who acquaint themselves with the working of Sir R. PEARCE EDGCUMBE'S experiments in Dorset, with Major POORE'S experiments in Wiltshire, and with the conditions prevailing at Downham in Cambridgeshire, to all of which Mr. HAGGARD calls attention, may be inspired to effect something similar. Even a Government might be induced to assist upon terms that would make its assistance of practical value, bearing in mind that the difficulties arising from overcrowding in towns, already almost insuperable, may be to some extent diminished in future by anything which keeps the rustic population at home.

## A "Plague Goddess" in Bombay.

To us of the West the workings of the Eastern mind are often unfathomable. In the simplest matters, as in the most recondite, it is clear that their ways are not our ways or their thoughts our thoughts. Not only is their point of view different, not only do they accept as facts what we look upon as the baseless fabric of a vision, but even when there are premisses accepted by both different conclusions may be drawn. From Bombay comes a tale exhibiting strikingly the tendencies and fallacies of Eastern thought and showing results which may well appal those who have at heart the extension of our modern hygienic ideas.

For nearly seven years many parts of India have been ravaged by plague and of all large towns affected by it few have suffered more than the city of Bombay. In their tens, their hundreds, nay, in their thousands, the victims of this pestilence have succumbed, but still the plague flourishes. The habits of the people are so opposed to all sanitary laws that no surprise need be felt at the continuance of the disease. Efforts have been made to restrict the spread of the malady and at one time the decree went forth that patients suffering from plague should be taken to isolation hospitals

and there tended with all the skill and science that the West can give. The attempt, however, was in vain; the people declined to accept the ostensible reason for the segregation of the sick and various explanations fanciful in the extreme were bruited abroad to account for the anxiety of the Government to take care of those affected. The result was that cases of plague were not reported and that when house-to-house visitations were made the plague-stricken were hidden so that the health officers were often unable to find them. In other cases forcible resistance was offered to the removal of the sick. Thus the plan defeated itself and the Government reluctantly suspended the order for the isolation of those suffering from plague who were left in their airless hovels to spread infection to their crowded families. Still, notification of cases became easier and some attempt could be made to supply medical assistance to the afflicted. There is no epidemic disorder with a higher mortality than plague; the death-rate is generally over 70 per cent. and sometimes even nine-tenths of those attacked may succumb. To the uninstructed native mind a disease with such a heavy mortality can only be looked upon as the direct act of the gods and it can only be satisfactorily treated by incantations and magic rites. Methods like these appeal to them far more readily than the hygiene and medicines of Europe. The fatalism which is so characteristic of uneducated peoples forbids them to entertain for a moment the idea that these epidemics can be prevented by fresh air, pure water, and cleanliness, and their aspirations after miraculous cures make them the easy dupes of self-assertive charlatans. In Bombay towards the end of February of this year a novel form of imposture made its appearance. A woman, some 45 years of age, BHAGIRATHI by name, announced that she had become "possessed" by the Goddess MAHA KALI and she made proclamation that she had seen with grief the seven years' plague which had decimated the city and caused intense and widespread misery. Now, however, a happier era was dawning, for as the incarnation of MAHA KALI she had come to save the city of Bombay. To purge the city of the pestilence the Government should give to the poor a maund of rice and "dal." She herself was to ride through the town seated on a buffalo, a "jatra" or fair was to be held in her honour, and for two days all business must be suspended—not even a single train must run. Should, however, the Government disdain to hearken to her counsel the only way in which she could display her divine power was to cure any plague patients taken to her. With what must be supposed to be miraculous foreknowledge she had rented, a few days before she was possessed by the goddess, some land in front of her hut where she built a mandap and she also erected an open shed. A large saffron-coloured flag and band of music served to enhance the attractions. The news of the arrival of this "plague goddess" spread rapidly through the city and it was not long before accounts of marvellous cures which she had wrought were freely circulated, and it is probable that these lost nothing of their miraculous character as they spread. Wonders so great could not be confined to Bombay; they spread to the neighbouring towns and reached even to greater distances. As a result patients were taken to her in great numbers, so large crowds collected to see the "cures" performed. We have no record of the number of patients who at first sought her aid, but during 18 days in March 839 sick persons were taken to her. Of these 687 were cases of plague, but there were also five cases of small-pox and two of measles. The remainder were mainly cases of chronic enlargement of lymphatic glands common in India as elsewhere. The patients were taken in every possible way. Some were well enough to walk even from places far off. Others were carried on the backs of loving relatives or friends, but many arrived in public carriages. The "plague goddess" did not condescend to treat every case taken to her and there were naturally much crowding and pushing as the friends of each patient tried to put him forward for early treatment. No attempt was made by BHAGIRATHI or her assistants to keep apart the sick and the healthy and the risk of contagion may be imagined.

The mode of treatment adopted is barbarous and revolting. The patient lies stretched out on the ground. BHAGIRATHI places herself by his side and applies her mouth for many minutes to the enlarged inguinal gland which she sucks vigorously, but the skin is not broken and no blood is drawn. Then the inflamed and tender gland is rubbed energetically with her foot and later with her hands. A betel nut is taken and pressed on the bubo with her foot and then kicked away. Powdered red lead is smeared on the swelling and on the patient's forehead and brushed with a twig and he is made to stand up. The "goddess" deals him three severe blows on the forehead and these are repeated by her assistant, and the patient is sent away after a donation of flowers, fruit, and money has been made. From time to time during the treatment BHAGIRATHI is seized with convulsions and only the arms of her two attendants save her from falling to the ground. The cases which she prefers to treat are instances of simple chronic glandular enlargement, for the sight of the patient able to walk away sound does much to enhance the popular belief in her superhuman powers of treating plague. When a case of true plague, however, is treated the results are disastrous. In one case examined by the executive health officer of Bombay the bubonic swelling had extended by the next morning to six inches around the gland and a cellulitis had evidently been set up. The massage cannot but serve to hasten the passage of the plague bacilli from the lymphatics into the blood stream and the chance of recovery must be materially diminished. Some true plague patients went on foot and since any exertion during this disease is very dangerous it is not surprising that some of these fell down dead near the hut of BHAGIRATHI. Within one month 23 persons died thus close to the temple of the "goddess." So much for the harm done to the patient himself, but what about the harm to others? The opportunities for the spread of the disease are numerous, the gathering together of crowds in times of epidemics is always to be deprecated, and especially harmful is it to associate large numbers of the plague-stricken with many not yet affected by the disease. Moreover, as we have seen, patients with other infectious disorders such as small-pox and measles are liable to be taken for treatment and thus these diseases also are likely to be spread. The employment of public carriages, too, for the conveyance of patients cannot but be dangerous and many were thus

employed, for in 19 days 326 public carriages were seen to take patients to BHAGIRATHI. The whole neighbourhood also ran risks of infection, for statistics have shown that the number of cases of plague occurring in the district where the "goddess" resided showed a very marked increase after her miraculous cures had commenced. Attempts were made to put an end to these barbarous practices. Under the Municipal Act the health authorities apparently have no power and therefore they gave information to the police. BHAGIRATHI was brought before the second presidency magistrate, and evidence was adduced that her mode of treatment and the crowds to which it gave rise were calculated to spread widely plague and other infectious diseases. The magistrate, however, dismissed the case as he held that the "goddess" could not know that plague was infectious, since she had not contracted the disease in spite of being brought into close contact with affected persons. Also the magistrate could not see that bringing large crowds of persons together, the sick with the healthy, was liable to spread the disease. By this amazing decision the "plague goddess" and her abettors were permitted to continue their dissemination of the plague. We are, it is true, not aware of the exact channel by which the plague bacillus gains entrance into the body, but of its communicability there can be no doubt. Two courses were then open to the police. An application might be made to the High Court for revision of the case, but this was a cumbrous and dilatory method of procedure and ultimately it might not be successful, and meanwhile the evil would continue. The other course was a direct appeal to the Government through the municipal commissioner of the city of Bombay. This was done and the Government resolved that the police should again prosecute BHAGIRATHI and her assistants. Fortunately the case was heard in the court of the chief presidency magistrate and the woman was convicted and fined 100 rupees and an injunction was granted restraining her from continuing her "cures," but these procedures took a month to complete and during this time hundreds of plague patients went to her for treatment.

We congratulate Dr. J. A. TURNER, the executive health officer, and also Dr. S. C. HORMUSJI, the divisional health officer, and the other officials concerned on the ultimate success of their efforts; but the whole matter shows the lack of wisdom in attempting to deal with uneducated populations, especially in times of epidemics, by means of the elaborate and cumbrous legal machinery which may be suitable to more highly civilised states of society. The folly of the magistrate who first heard the case needs no further comment from us.

# Annotations.

"Ne quid nimis."

## ST. BARTHOLOMEW'S HOSPITAL.

THE Lord Mayor's committee of inquiry into the affairs of St. Bartholomew's Hospital met on May 5th at the Mansion House under the presidency of the Lord Mayor. The report of the subcommittee on administration and finance was discussed, the conclusions of the report being summarised as follows:—

(1) That the hospital is properly and economically administered and that an increase rather than a reduction of expenditure must be looked for; (2) that any prospective increase of rental will be more than absorbed by the deficit caused by the purchase of land from Christ's Hospital; and consequently (3) that no part of the outlay that will have to be incurred for new buildings can be provided out of the hospital's fund except by additional borrowing that would entail a further loss of income.

After discussion of the report the following motion was unanimously agreed to:

That this committee, having carefully considered the report of the subcommittee on the financial and administrative management of the hospital [which is summarised in the "conclusions" given below] are of opinion that the governors have completely vindicated the reputation, character, and administration of the hospital and are fully justified in appealing to the public for funds to enable them to utilise the land acquired from Christ's Hospital and to provide the new buildings urgently necessary to bring the hospital up to modern requirements in all respects.

All the friends, and they are many, of the oldest hospital in the United Kingdom will be glad to see that the committee is of opinion that the "reputation, character, and administration of the hospital" have been completely vindicated, but possibly everyone will not agree with the recommendation that the public should be appealed to. A public appeal would probably divert a certain amount of money from other deserving charities and we ourselves have said in a former issue[1]: "It seems to us better for the public that St. Bartholomew's should temporarily bear the burden of a debt to the bank than that supplies which are the very life blood of other charities should be jeopardised." The hospital, however, is at present a City institution, although it benefits the country at large. It was originally served by a religious house and its revenues came out of money given to the Church, which was mostly taken away from the Church by Henry VIII. at the Dissolution of the religious houses. We think that an appeal might well be made to the heads of those great families whose founders received Church lands.

## THE MIDWIVES ACT AND THE TEACHING OF OBSTETRICS.

IN his introductory address to a course of lectures on Obstetrics at the Owens College, Manchester, Dr. W. Japp Sinclair made several references to the Midwives Act and to the work which lies before the Central Midwives Board of which he is a member. The Act, it will be remembered, only came into force on April 1st and the board has consequently not yet had time to complete the large body of rules, the making of which may be said to form its first duty, and these when framed by the board have to be approved by the Privy Council which is to consider any representations made with regard to them by the General Medical Council. Dr. Japp Sinclair was therefore precluded from speaking in detail of the work done and to be done by the board, but he was able to forecast in general terms the changes which the Act might be expected to bring about. With regard to the midwives themselves he looked to the Act as destined ultimately to abolish the "Gamp" throughout the country, removing the practice of midwifery from the hands of "the illiterate widow, the elderly housemaid, the innominate drudge of country districts," and placing it so far as it is to be practised by persons not members of the medical profession in the hands of those who, he submitted, should not be altogether illiterate. For example, he suggested that the certified midwife should be able to read a manual, to write a report of a case, and to have such acquaintance with the rule of three as to enable her to prepare an antiseptic solution or to dilute a baby's milk in the same degree on two successive occasions. The Act itself Dr. Japp Sinclair evidently looked upon as far

[1] THE LANCET, Jan. 17th, 1903, p. 181.

from perfect although capable of amendment and improvement, but he expressed the belief that the changes brought about by it might in the future be found to exercise considerable influence upon the teaching of obstetrics in medical schools. In considering the course of training generally adopted in this country for this branch of medical study he drew unfavourable comparisons between English practices and the superior efficiency which he claimed for German methods. The Midwives Act is beyond question a measure which leaves to the board which it has brought into being a very wide discretion in the framing of the regulations by which alone the Act will become effective and many will study these with interest besides the class directly concerned in them. Although we have referred to the Act as having come into force on April 1st our readers are aware that that date only marked the commencement of the powers of the board the most immediate duty of which, as we have pointed out, consists in the framing of rules. It is not until April 1st, 1905, that a midwife not certified under the Act is precluded from taking or using the title of midwife or any name implying that she is certified under the Act and consequently there is no immediate urgency for the certification and registration of those who are permitted by the Act to be certified without being examined under the regulations of the Central Midwives Board. They have to comply with the necessary formalities in the course of two years from the date of the Act coming into operation but are not obliged to do so before. It is not until April 1st, 1910, that every woman practising as a midwife will have to be certified. As, however, the women who may desire admission to the roll of midwives by means of the training and examinations to be imposed by the board will require time in which to prepare themselves that body is no doubt proceeding as rapidly as circumstances will permit with the framing of the necessary regulations.

## INTERFERENCE WITH A MEDICAL WITNESS.

AT an inquest held at Acton on May 5th upon the body of a clergyman who had been found in his bedroom shot dead with a revolver lying near him a medical witness made a complaint to the coroner of a nature which is happily unusual. Mr. D. M. L. Campbell, after giving his evidence, asked the coroner whether it was right that a medical man summoned to give evidence at an inquest should be visited two or three times with reference to what he might be about to say and should receive a letter or letters suggesting that his examination of the body had not been careful and that he should make another. It was further suggested to him that a clergyman would not commit suicide. The coroner very properly and very naturally expressed his strong disapproval of what had been done and refused to listen to an explanation which was tendered, no denial of the accuracy of Mr. Campbell's statement being made. The coroner's observations can hardly have been too severe for the occasion. Mr. Campbell pointed out that to him, as he had been personally acquainted with the deceased, the task of making the examination and giving evidence had been exceptionally sad. In any case, a medical practitioner in such circumstances has thrust upon him a painful duty incidental to the practice of his profession and he is entitled to the protection of the court before which he appears. Mr. Campbell, according to the report of the inquest in the *Acton Gazette*, said: "When I was called I went into the room and the body was lying supine. He was lying on his back with his head inclined a little to the right side. The legs were straight out and the little and index fingers of the right hand were resting on the floor, whilst the revolver was in the position in which it had been grasped, although it appeared to have slipped from the grasp. There was a wound behind the right ear. The direction of the wound was forward and onward." In answer to direct questions from the coroner he gave the opinion that the wound was self-inflicted and that it could not have been accidental. He also added that the hair was singed. There may be a slight error in the report quoted as to the course taken by the bullet, but this does not affect our view of Mr. Campbell's position. It will be perfectly clear that the medical witness who observes facts such as these is obliged to include them in his evidence and is entitled to draw the deductions recorded. It was open to the relatives and friends of the deceased through their legal representative to cross-examine Mr. Campbell and this they did propounding a theory of an unintentional discharge while the deceased was cleaning the revolver and supporting their theory with evidence, apparently to the satisfaction of the jury who found a verdict of "Accidental death." That they should have taken the other course of seeking to influence Mr. Campbell in his evidence is a matter which they should now regret. A medical witness called at an inquest is a member of an honourable profession, occupying a position which renders him independent of all prejudice. He is summoned to give evidence as to facts observed by him and to express opinions which his training and experience enable him to form. The jury is not bound to adopt his view in their verdict, but he is not to be interfered with in expressing it without fear or favour.

## THE PATHOLOGY OF GASTRIC ULCER.

MANY theories have been proposed to explain the origin of true gastric ulcer which was first distinguished as an affection *sui generis* by Cruveilhier. Some have attributed it to the action of the gastric juice, some to disturbances of the circulation such as are seen in thrombosis and in septic and aseptic embolia, and others again to the attacks of micro-organisms; but in 1874 Dr. Durante, recognising its affinity with the "*mal perforant*" of the foot, pointed out that in both instances the tissues affected were predisposed to disease in consequence of deep-seated disturbance of the nerves distributed to them. The subject has again been taken up by Dr. R. Dalla Vedova of Rome who has endeavoured to determine, by means of resection of the vagi and of the solar plexus (from which sources the stomach receives its nervous supply) or by the injection into these structures of an aseptic fluid such as concentrated alcohol, the effects of the suppression of nervous influence upon the nutrition of the stomach. He found that about half of all the animals operated on exhibited distinct changes in the gastric mucous membrane. This effect was not due to the toxic action of the alcohol causing acute septic peritonitis without any characteristic microscopic inflammatory changes, for no less than two-thirds of the animals survived for ten days; nor was it due to exposure of the intestines to cold or to any mechanical injury to the parts, since these were not, and need not be, touched in extirpation of the cœliac plexus. Dr. Dalla Vedova considers himself to be justified, from a careful consideration of all the circumstances, in drawing the conclusion that the necrotic ulcers of the gastric walls observed in his experiments were directly due to the lesions inflicted on the abdominal sympathetic. The ulcerative processes were noticed to affect chiefly the antrum pylori, and many drawings accompany Dr. Dalla Vedova's article showing the position of the ulcers, hæmorrhages, spots of necrosis, and cicatrices of ulcers that were seen after the death of the animals. This position of the ulcers he attributes in part to the more highly acid reaction of this segment of the stomach and in part to the constant irritation of the several tunics debilitated by the loss of their nervous supply owing to the passage over them of the more solid parts of the chyme in the later stages of digestion.

The size of the necrotic spots varied from that of a pin's head to that of a lentil; they were more or less circular and they were elevated on an œdematous and hyperæmic area. The hæmorrhages were small and varied in colour from yellow to blackish-brown and the ulcers were funnel-shaped, extending through the whole thickness of the mucous membrane, the base being formed by the muscular coat. Their borders were fairly well defined and on the depressed surface was some necrotic detritus. A German translation of Dr. Dalla Vedova's original article, which was contained in the report of the sixteenth annual meeting of the Società Italiana di Chirurgia which was held at Rome in 1900, has recently appeared in the *Archiv für Verdauungs Krankheiten*, Band viii., Hefte 3, 4, and 5.

## THE KING'S SANATORIUM.

A SITE for "King's Edward VII.'s Sanatorium" has been acquired from Lord Egmont at Lord's Common, Easebourne, six miles south of Haslemere and about three from Midhurst. The site is 150 acres in extent and contains in its northern and eastern portions a magnificent fir wood. Towards the south and sheltered by the wood is a natural open plateau over 450 feet above sea level and commanding in the distance a beautiful view of the South Downs. Upon this the sanatorium will be erected. Behind the ground gradually rises until at the northern extremity of the property a height of 620 feet is attained. Complete shelter from north and east winds is thus secured. To the west and immediately adjoining the site is an open common of considerable extent, which will add materially to the usefulness of the institution. The lower greensand is the geological formation. A delay in acquiring the site was occasioned by the difficulty experienced in obtaining a due supply of water, but by impounding springs about a mile away to the north of the site this difficulty has been overcome and an abundant supply of water of great organic purity, as tested both bacteriologically and chemically, has now been obtained. Mr. H. Percy Adams, F.R.I.B.A., the architect appointed by the advisory committee, who has recently by its direction made a very careful study of sanatoriums both in Germany and Switzerland, is now preparing his plans.

## PUBLIC HEALTH LITERATURE.

IN another place we publish under the heading of "The Aerial Convection of Small-pox" a letter from Professor Antony Roche, and certain points raised in that communication have a general interest for the public health services. As regards the literature relating to the aerial convection of small-pox, we venture to think that there will be found in the numbers of THE LANCET, either in editorial articles or in our abstracts of the annual reports of medical officers of health, references to most of the literature which is really of importance. Moreover, the reports of societies dealing with public health and epidemiology will also be found in our columns. But the main point in the communication under consideration is the suggestion that the Local Government Board should publish annually a *résumé* of the reports furnished by the medical officers of health throughout the country. Apparently, a suggestion in this sense was made to the late Sir Richard Thorne, whose only objection to the course was the expense which it would entail, more particularly if a copy of such a publication were to be sent to every medical officer of health in the country. Although it does not appear to us that a *résumé* of all the reports is called for, seeing that but a small proportion thereof contain matter of any interest to those outside the district concerned, we quite agree that a useful purpose might be served if the Local Government Board could be induced to publish annually a volume of the more interesting points contained in the reports of medical officers of health. Possibly a deputation to Mr. Long might assist this matter. But what we think is of at least equal importance is that the annual reports of the medical officer of the Local Government Board, which contain not only selected reports by the medical inspectors but also the records of valuable bacteriological and chemical research, should be made more accessible to medical officers of health. Unfortunately, the price of these volumes is somewhat prohibitive but if they could be presented to medical officers of health or supplied to them at a reduced price a very material service would be rendered to the public health service. It would be well in the event of Professor Roche's suggestion being carried out that the annual volume which it is proposed to establish should contain selections not only from English public health literature but also from the report srelating to the more important foreign cities. But public health literature, more especially if it be held to embrace bacteriology, covers in these days a very wide field and the volume in question would be likely to run to very bulky proportions. As regards the reports of the medical inspectors of the Local Government Board, Professor Roche will find notices thereof from time to time in our columns and all these reports can be purchased for a few pence from the Government publishers, Messrs. Eyre and Spottiswoode. Unfortunately, the annual reports of medical officers of health cannot, as a rule, be so purchased, but there would seem to be no sufficient reason why this should not be arranged for in the future.

## THE PUBLIC SALE OF INDELICATE PRINTS AND OFFENSIVE LITERATURE.

A PICTURE that looks well and can be properly appreciated in the hallowed precincts of an academy may not look so well or refined when reproduced in the form of a cheap engraving and sold openly in the public streets. We have noticed for some time past that at regular periods in the streets of the city there seem to be epidemics of the sale of bad literature and suggestive prints, and only this week we saw reproductions about two feet long of a well-known picture which is a study of the nude being openly offered for sale at a penny each not a mile from the Stock Exchange. We are afraid that in many cases the purchaser, who may be a small boy with a penny to spare, is not likely to possess that subtle discrimination, generally only the outcome of a mature mind and refined nature, which appreciates only the artistic beauties of such a picture and rejects all grossness. Again, pamphlets are often sold in the city streets either really obscene or professing to be so and often possessing an alluring cover as a bait to entice purchasers to taste of the carrion within. The gutter merchants who sell such noxious wares should receive attention from the police.

## OPERATION FOR EXTRA-DURAL HÆMORRHAGE FROM WHOOPING-COUGH.

IN the *New York Medical Journal* of April 25th Dr. G. S. Brown has published a case which is not only important as a contribution to the scanty literature of the cerebral complications of whooping-cough but also appears to be unique in the fact that an operation was performed for cerebral hæmorrhage from this disease. A healthy boy, aged seven years, had whooping-cough. The paroxysms were pronounced but not severe. After four weeks he complained of pain in the head and became irritable. On the next day, when Dr. Brown first saw him, he was suffering intensely from pain in the right temple. "The pain was so severe as to suggest rupture of a vessel, particularly as there

was sufficient somnolence to arouse suspicion." On the following morning at 3 o'clock he was in great pain, somnolent, and semi-delirious with a slow pulse, a temperature of 103° F., and complete paralysis of the left arm. A hypodermic injection of morphine gave some relief until 10 A.M., when another was given. At 3 P.M. he had a slight convulsion; at 9 P.M. the somnolence had increased. The pain was agonising and was much increased by the attacks of coughing, for which one-twelfth of a grain of heroin hydrochloride was given every four hours. The question of operation was considered but postponed in consequence of lack of precedent. Although almost narcotised from the heroin he had a severe left-sided convulsion at midnight which was followed within an hour by two more, each more prolonged and severe than the last. As his condition was alarming and as it seemed clear that a clot was pressing on the right motor area of the cortex he was trephined an inch above, and in front of, the parietal eminence. The opening in the skull was extended towards the middle of the Rolandic area and the dura mater was opened but nothing could be found. The child's condition was not favourable to further search and it was hoped that the opening would relieve the pressure. On the next day all the symptoms except the paralysis had improved, but 48 hours after the operation there were three convulsions in quick succession. The patient was trephined again nearer the median line. The dura mater was opened to the extent of an inch but nothing could be found. It was immediately sutured. Upon cutting away a piece of bone from the trephine opening a clot was found. Owing to its small size it was thought at first that the clot might have been a result of the first operation, but an hour after its removal the patient moved his arm and the limb was as strong as ever two days later. Recovery was uninterrupted. The hæmorrhage was extra-dural and was supposed to come from the middle meningeal artery.

## THE PREVALENCE OF SMALL-POX.

SMALL-POX shows but little sign of decreasing. Last week the number of cases at Salford showed a decided rise and it continues to spread in the West Riding. In Dublin there is a great tendency to conceal the existence of cases and this renders the work of the health authorities very arduous. In London on Friday, May 8th, there were 57 cases of small-pox in the hospitals of the Metropolitan Asylums Board, as compared with 44 a week previously. At a meeting of the Poplar borough council held on May 7th the following case was reported by the medical officer of health, Mr. F. W. Alexander:—

A male, aged 32 years, was detained at a surgery in the Roman-road and removed suffering from small-pox on April 20th. (See footnote.) The patient, apparently in good health, had returned home from a hospital in Bath on the 9th inst., where he had been an inmate for five weeks. On the 15th inst. he became ill, rash appeared on the 17th inst., and as stated above was removed on the 20th inst., so that he had been lying at home for six days suffering from small-pox. In the same house living with him were his wife, a daughter aged 16 years, and six unvaccinated children. These children had been playing in the streets with other children and neighbours had been going in and out of the house. Information was also given that a child, aged 18 months, on the 18th inst. was sent from Ford-road to Ellesmere-road, Bethnal-green; notice was at once given to the Bethnal-green authorities. All the inmates have been removed to the Council's shelter, Glaucus-street, and the house will be cleansed and disinfected throughout. The mother requested that the six unvaccinated children should be vaccinated. The public vaccinator was communicated with, but it is questionable whether vaccination will be of any use, as the children had been exposed to infection for six days. Another child, aged eight years, unvaccinated (making seven in all) was brought into the shelter on the 21st inst. from Chisendale-road; he had been taken there on the 20th inst. The medical officer of Bethnal Green was communicated with. It was evident to the medical officer of health that the disease must have been contracted out of the district, and thinking that in the institution at Bath from which the patient was discharged there may be other inmates with the premonitory symptoms of small-pox, the medical officer telephoned through to the institution at Bath, and was informed that two cases of small-pox had been removed on the 16th inst. and others since. If the telephone answer received be correct it is a pity that the authorities of the institution at Bath did not communicate with all the local authorities to which patients had been discharged within the 14 days previous to the 16th April, then the patient at Ford-road would have been discovered on the 17th inst., and chances of the spread of the disease lessened.

FOOTNOTE.—From information since received the small-pox patient went to the London Hospital, was placed in an isolation ward pending making inquiries, as he was seen to have small-pox, and arrangements were about to be made for his removal but he made his escape.

We are glad to see that the borough council warmly commended Mr. Alexander for the prompt way in which he had dealt with this case. Mr. Alexander now informs us that already nine other cases of small-pox have been traced to this patient, so we earnestly hope that when he is recovered the sanitary authorities will prosecute him for exposing himself while suffering from a dangerous infectious disease.

## RESIGNATION OF DR. POORE.

WE regret to announce that Dr. G. V. Poore, Professor of Clinical Medicine in University College, London, and physician to University College Hospital, has found it necessary to resign his appointments in consequence of ill-health. Dr. Poore's brilliant work as a physician and a practical sanitarian is well known to all our readers and he has well earned by 35 years of able and unceasing toil the good wishes of all his profession. Now that he is relieved from heavy official duties the loss of University College will be the gain of his patients and their medical advisers, as he will be able to give more time to his private work.

## GANGRENOUS CHOLECYSTITIS.

IN the *American Journal of the Medical Sciences* for April Dr. John H. Gibbon has published a case of the very rare condition of gangrenous cholecystitis. A woman, aged 52 years, was admitted to hospital on Oct. 3rd, 1902. She had suffered from frequent attacks of indigestion, accompanied by nausea and vomiting. Her illness began three days before admission with pain in the left hypochondrium and vomiting. On the evening of admission the temperature was 102° F., the pulse was 112, and the respirations were 32. She complained of pain and tenderness in the left side of the abdomen. The abdominal muscles on the right side were rigid and a smooth tumour which seemed to move away from the examining hand could be felt. On the next morning the tenderness and rigidity had so much increased that the tumour could not be palpated. The leucocytes were 37,600 per cubic millimetre. Immediate operation was decided on. When the abdominal muscles relaxed under the anæsthetic it was easy to diagnose a distended gall-bladder. An incision was made over it. When the abdomen was opened some free fluid escaped. The gall-bladder was covered by adherent omentum. When this was removed the gall-bladder was found to be distended and its fundus of a dark purple colour. A number of abdominal pads were inserted, the gall-bladder was incised, and very foul pus was evacuated. The mucous membrane was green and gangrenous throughout. A large calculus was fixed at the mouth of the cystic duct. The fundus was gangrenous throughout all its coats and between it and the rest of the gall-bladder was a clear line of demarcation. The fundal portion was thin but the rest of the organ was much thickened, measuring from half an inch to one inch in thickness. It was decided to remove the gall-bladder. Its separation from the liver was easily accomplished with the finger, the tissues being soft from infiltration. When an attempt was made to ligature the cystic duct the gall-bladder separated and came away even before the first knot was tied. The cystic artery bled freely and could not be controlled by a pressure forceps as the instrument cut through the inflamed tissues. The hæmorrhage was arrested by gauze packing. Gauze drains were inserted and the wound was partially closed. The patient was very ill after the operation but on the next day she was better. Convalescence was

uninterrupted and the wound healed rapidly. The leucocyte count on the morning of operation was 37,600; on the next day it had dropped to 12,600. Gangrenous cholecystitis probably depends on two factors—obstruction of the cystic duct and infection by virulent microbes; whether either alone can produce it cannot be said, since in all cases microbes and some obstruction, if only that from swollen mucous membrane, are present. Of course gangrene does not take place until the circulation is obstructed. Gangrenous cholecystitis is analogous to the much more common gangrenous appendicitis. The gangrene in the present case depended on impaction of the calculus cutting off the circulation. The symptoms are those of acute localised peritonitis. Jaundice is generally absent, unless there is marked cholangitis or the inflammation has extended to the liver. Gangrenous cholecystitis is liable to be mistaken for appendicitis, but under anæsthesia the two conditions can usually be differentiated. In both cases immediate operation is indicated and a gangrenous gall-bladder, like a gangrenous appendix, should be excised. Dr. Gibbon agrees with the advice of Mayo that the cystic duct should not be ligatured and is glad that his attempt to ligature it failed, for there is always some cholangitis which will be relieved by drainage.

## THE HATCHING OF CHICKENS FROM EGGS TWELVE MONTHS OLD.

WE have more than once directed the attention of our readers to the remarkable preserving properties of soluble glass or silicate of soda and it is surprising that this solution is not used more generally for the preservation of eggs. It is confidently stated that a newly laid egg will keep for many months when completely immersed in a 10 per cent. solution of the silicate and will then be indistinguishable as regards appearance and taste from an absolutely fresh egg. It shows the flakiness of the fresh egg and there are no signs of staleness whatever or of any disagreeable property which commonly characterises the "shop 'un." We have ventured to give an explanation of this remarkable preserving effect by assuming that the soluble silicate forms a hard, glassy, impermeable mass with the lime salts in the substance of the shell, a real insoluble glass, so that the contents are literally hermetically sealed against external influences. That is a remarkable enough fact, but it is now reported that chickens have been hatched from eggs preserved for 12 months in this way. This extraordinary result shows that not only are chemical changes prevented but that also the conditions of the vital processes in the egg remain unimpaired. The chicken thus hatched from a twelve-month-old egg is reported to be a quite strong and attractive bird. The recently reported success of this method, by which life would appear to be suspended so to speak, would seem to open up many possibilities in regard to the transportation and supply of food.

## THE JOHNSTON LABORATORIES AT UNIVERSITY COLLEGE, LIVERPOOL.

THE account given by our correspondent which appears at p. 1412 of the opening of the Johnston laboratories at University College, Liverpool, is of special interest inasmuch as the opening ceremony was performed by a Minister and that Minister the one who holds the very important post of President of the Local Government Board—namely, the Right Hon. Mr. Walter Long, M.P. We do not for one moment think that Mr. Long's presence pledged his colleagues in the Government to any course of action but we cannot help hoping that the fact is of good omen for a forthcoming Act which shall deal with the question of vaccination. Mr. Long, it will be seen by a reference to his speech, confessed that the object of his department was to impose regulations for restricting the spread of disease whilst interfering as little as possible with trade. Now, no one can say that vaccination interferes with trade. Meantime, we heartily congratulate Liverpool upon such a worthy citizen as Mr. William Johnston. Of old time the merchant princes of Europe gave funds or left moneys to drain fens or to build dykes or to found hospitals or religious houses for the purpose of looking after the sick and the needy. Bio-chemistry may not seem such a practical work but it is nevertheless no less valuable for the prevention of disease and the improving of the health of the people.

## PUBLIC SUPPLIES OF MILK FOR INFANTS.

MEDICAL men who practise in working-class districts are well aware that when mothers do not suckle their infants they have very vague ideas as to the selection and preparation of cow's milk or other substitutes for breast milk. In some large towns the difficulty has been partly met by some public body undertaking the supply of sterilised or sterilised and "humanised" milk for infants. This system was introduced, for instance, in St Helens, Lancashire, some years ago. A letter which appears on p. 1402 of our present issue is encouraging to the philanthropists who are in favour of this innovation, as it shows that the Royal Hospital for Children and Women in Waterloo Bridge-road is promoting a petition in this sense to the borough council of Lambeth. We understand that Battersea is the only metropolitan borough which has up to the present time undertaken this duty. Like most other questions, that of the public supply of milk for infants has two sides and an abstract of a paper on the subject read before the International Congress of Medicine at Madrid by Dr. A. L. Peyroux of Paris will be found on p. 1410 of our present issue. This gentleman disapproves of the indiscriminate supply of milk in this way on the ground that it tends to discourage the breast-feeding of infants.

## VACCINATION, REVACCINATION, AND THE ADMINISTRATION OF THE VACCINATION ACT.

IN view of the lapse at the end of the present year of the Vaccination Act now in force the medical officer of health of Huddersfield, Dr. S. G. Moore, pursuant to a resolution of his health committee, attended a meeting of the Incorporated Society of Medical Officers of Health held in London on Feb. 11th, where the above subjects were discussed. At the meeting of the Huddersfield health committee held on March 25th a communication dealing with the same matters was received from the Royal Institute of Public Health and was referred to the medical officer of health for report. Dr. Moore has now submitted a memorandum to the health committee in which, shortly to summarise, he suggests, firstly, that the administration of the Vaccination Acts should be taken out of the hands of the Poor-law authorities; secondly, that vaccine lymph other than that supplied by the Local Government Board should be prepared and distributed under the supervision of local sanitary authorities; and, thirdly, that provision should be made for revaccination both general at the age of ten or 12 years, and special—i.e., in the case of persons recently exposed to infection; this last at least to be compulsory. Dr. Moore concludes by stating that the present is an opportune time to impress on the Government the necessity for improving the measures available against small-pox. He hopes that his recommendations will be received by the committee and the council and will be transmitted to the Local Government Board as representing the views of the latter. Further he requests the committee to take into consideration the advisability of securing the coöperation of other towns in the north of England. Dr. Moore's recommendations are good, but the Government has already played the medical profession

false as regards revaccination, and we doubt whether polite resolutions from one or 50 town councils will weigh with the Government so much as a few words from General Phelps or Mr. Broadhurst. Mr. Walter Long, however, is a Minister from whom much may be expected and if he will only take up the firm attitude upon vaccination which he took upon hydrophobia all may yet go well.

## GUY'S HOSPITAL.

THE report of Guy's Hospital for the year 1902 states that on Dec. 31st of that year there were urgently required £85,000 to complete the renovation and building fund and to provide additional income for the purposes of maintenance. Moreover, the medical school requires for the "endowment of medical education and research" the sum of £125,000. The total income arising from investments is in round numbers £32,370 and the total expenditure in the same way is £90,720. The difference between these two sums is made up by grants from King Edward's Hospital Fund, the Sunday and Saturday Hospital Funds, and by transfers from the sustentation fund and from capital account. Elsewhere we have recorded the fact that another great metropolitan hospital is about to appeal for funds. Guy's Hospital for 160 years performed a great public work without public aid. St. Bartholomew's Hospital has done the same thing for 780 years. Both hospitals have a noble record and both, it is certain, will make a good use of whatever moneys they may procure, but even the purse of charity is not bottomless and the risk that other and more needy institutions may be injured by the answer to the appeals from Guy's and from St. Bartholomew's Hospitals has to be faced.

## THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

THE American Electro-Therapeutic Association has issued its report for the year 1902-03, which is prefaced by an interesting historical sketch of the inception and progress of the society. It was founded in 1891 and the first annual meeting was held at Philadelphia. The association would appear to be doing good work in the reading of papers and in the appointment of standing committees on various forms of electric and electro-therapeutic apparatus. Electro-therapeutics have been so exploited by quacks and swindlers that we are always glad to see this branch of medicine dealt with by a scientific society. We do not see any mention in the by-laws or other regulations of the society that it concerns itself with the doings of quacks, an omission which we hope will be rectified in future, for we have no doubt that if strong protests were to be made to the authorities by duly authorised representatives of the profession the dens of thieves who sell "magnetic invigorators" and the like would be weeded out. We are quite aware that we in this country are by no means blameless or free from these pests and possibly the time will come when the medical profession on both sides of the Atlantic will unite in doing its utmost to put down one at least of the many forms of quackery which rob the pockets and sap the health of their victims.

## THE DISTRIBUTION OF PLAGUE.

As regards the Cape Colony the acting medical officer of health states that for the week ending April 18th the condition of the various places mentioned below was as follows:—At the quarantine station, Saldanha Bay, 2 Asiatic males remained under treatment in the hospital, both being convalescent. At Port Elizabeth 7 cases of plague were discovered—namely, 1 native male, on April 12th: 1 native male (found dead) on the 13th; 2 native males (1 of whom was found dead) and 1 native female on the 15th; 1 European male and 1 native male (found dead) on the 18th. At the plague hospital, Port Elizabeth, 1 coloured male and 1 native male died during the week, while 1 coloured female was discharged cured, leaving 17 cases under treatment. Plague-infected rats continued to be found in the town during the week. At East London on April 14th a native male was admitted to hospital suffering from plague and died on the 17th. 1 native male was discharged cured during the week, leaving 1 case under treatment at the plague hospital. Plague-infected rats continued to be found in the town during the week. At King William's Town 2 cases of plague were discovered—namely, 1 native male (found dead) on April 16th, and 1 native male (found dead) on the 18th. At the plague hospital 1 European male died and 2 European males were discharged cured, leaving 1 patient under treatment. No cases of plague and no plague-infected rats were found in Graaff-Reinet during the week. As regards the Mauritius a telegram from the Governor received at the Colonial Office on May 8th states that for the week ending May 7th there was 1 fatal case of plague.

## MYOPIA IN DIABETES MELLITUS.

IT was first demonstrated by Hirschberg that in the course of diabetes mellitus some degree of myopia occasionally develops in eyes previously emmetropic or hypermetropic, without turbidity of the lens or cataract. Dr. Sigmund Neuburger of Nuremberg in the *Münchener Medicinische Wochenschrift*, No. 12, 1903, records two examples of this diabetic myopia which he had an opportunity of observing, and in both of which the ocular condition led to the discovery of the diabetes. The patients were women, aged about 50 years, whom Dr. Neuburger had known previously to the development of the myopia, one having been emmetropic and the other slightly hypermetropic. In the first case the myopia soon passed off and no other ocular signs developed except slight change in the macular region of the right eye, although the other diabetic symptoms increased. In the second case, on the other hand, the myopia increased, reaching a degree of −8 D., and at a later period diabetic cataract developed. The explanation given of this change is that it is due to an alteration in the refractive index of the lens substance induced by the diabetes. This explanation, however, seems hardly convincing as it is difficult to see, on the one hand, why the change is not more common if it depends upon the altered condition of the circulating fluids in diabetes, and, on the other, why the condition can pass off while the diabetic changes elsewhere are increasing. It may, however, be of importance in the early diagnosis of diabetes by leading to an examination of the urine for sugar, which, according to Dr. Neuburger, should be done in all cases of myopia beginning in middle age.

## ANTHROPOMETRICS IN SALFORD.

IN THE LANCET of March 28th, p. 926, attention was drawn to an interesting and important inquiry that was being carried out in three of the Salford board schools as to the physical characteristics of the boys at various ages. It was decided at the meeting of the school board held on April 27th that the subcommittee in charge of the matter should be authorised to take anthropometric measurements of boys at the ages of eight, ten, and 13 years in *all* the boys' and mixed departments of the board schools. This decision is satisfactory, for though measuring the boys will not of itself do much to improve their physique it is well that the facts should be known. If no interest is felt as to whether our urban lads grow up weakly or strong no attempts will be made to improve the conditions under which they live. It may be remembered that the Grecian-street school stood well as compared with one in Pendleton,

but it appears from the returns that the Grecian-street boy is a little less in height and in weight than the London board school boy and three inches less in height than the average public school boy of his age and nine pounds less in weight. Taking the John-street school type—the worst of the three—the boy aged 13 years was seven inches shorter and 25 pounds less in weight than the public school boy. "The Salford boy, he thought," said the Rev. Mr. Rees, "was physically punier than other boys and rivalled the boy of Rochdale." This statement is not encouraging for Salford and still less so for Rochdale. It is a national calamity that so large a proportion of our population are growing up puny weaklings and the result may some day be disastrous. The contrast would be pitiful if these town-dwellers were put side by side with some of the well-grown and magnificently proportioned men and women to be seen on the Lancashire Fells.

## TUBERCULOUS PERICARDITIS.

TUBERCULOSIS of the pericardium is a rare condition though it is probable that it is sometimes not recognised even at a post-mortem examination when the pericardial adhesions present are thought to be due to some other cause. Dr. Osler has given in the *American Journal of the Medical Sciences* a clinical classification of cases of the disease. He divides them into four groups. In the first the disease shows no distinctive sign and the condition is only found at the necropsy. This occurs chiefly in cases where the pericarditis is secondary to tuberculosis of the lungs. In the second class are cases in which the adherent pericardium present gives rise to symptoms of cardiac embarrassment; in the third group are cases with evidence of pericardial effusion, but the cause of the effusion may be unsuspected, and in the last group are cases of acute general tuberculosis, and the pericardium only suffers with many other organs. Primary tuberculous pericarditis is much less common than the secondary form, which chiefly results as an extension from tuberculosis of the lungs or it may occur in an acute form as the result of the bursting of a caseating bronchial gland. In the present issue of THE LANCET is an account by Dr. J. Odery Symes of Bristol of an interesting case of tuberculous pericarditis occurring secondarily to disease of the lung; there was much pericardial effusion and repeated aspiration was necessary. The tuberculous nature of the pericarditis was made certain by the presence of tubercle bacilli in the fluid.

THE King has sanctioned the following appointments to the Order of the Hospital of St. John of Jerusalem of England: Sir Arthur Conan Doyle, Lieutenant-Colonel Edmond Munkhouse Wilson, C.B., C.M.G., D.S.O., R.A.M.C., Surgeon-General Alfred Keogh, C.B., and Lieutenant-Colonel William Babtie, C.M.G., V.C., R.A.M.C., to be Knights of Grace.

THE Ingleby Lectures of the University of Birmingham will be delivered in the medical lecture theatre of the university on Tuesdays, June 9th and 16th, at 4 P.M. The Ingleby lecturer for the year is Mr. William F. Haslam, F.R.C.S. Eng., surgeon to the General Hospital, Birmingham, and the subject of his lectures will be "The Surgery of the Pancreas."

THE dinner of the Sanitary Institute will be held in the Richelieu and Medici Rooms at the Hotel Cecil, London, on Friday, May 15th, at 7.30 P.M., when H.R.H. the Duke of Cambridge, K.G., the President of the institute, will take the chair.

A RECEPTION by their Royal Highnesses the Prince and Princess of Wales, Grand President and Lady Grand President of the League of Mercy, will be held in connexion with the League at Marlborough House on May 22nd.

THE next session of the General Council of Medical Education and Registration will begin on May 21st at 2 P.M., Sir William Turner, K.C.B., the President, being in the chair.

THE annual banquet of the Coroners' Society of England and Wales will be held at the Holborn Restaurant, London, on Thursday, May 28th, at 6.30 for 6.45 P.M.

# THE MEDICAL PROFESSION AND THE MERCANTILE MARINE.

*Paterson v. the Peninsular and Oriental Steam Navigation Company.*

IN July, 1902, Dr. T. W. S. Paterson agreed with the Peninsular and Oriental Steam Navigation Company in London to go as surgeon on one of its steamers from London for one voyage out and home. The ship to which he was appointed was the *Socotra* sailing to Japan. On joining the ship he was requested to sign the ship's articles as prescribed by the Board of Trade. Pasted on to the articles was a printed strip which contained two by-laws of the company. One of the by-laws was worded as follows:—

> That the crew or any member thereof may be transferred if required at any port, at any time, to any other vessel of the company, wages, capacity, and terms of service being the same.

Dr. Paterson took exception to this clause and at first refused to sign the articles, but on being verbally assured that this by-law would not be acted on he signed the articles and joined the ship. He was described in the articles as "seaman." By the merchant shipping law a surgeon is considered an ordinary seaman. Upon arriving at Shanghai on the homeward voyage on Oct. 19th, 1902, Dr. Paterson was ordered by the company's agent through the captain to transfer himself to the s.s. *Ballarat*, one of the company's ships plying between Bombay and Shanghai and not going home. He refused to do this. The agent then instructed the captain of the *Socotra* to prosecute the surgeon of the *Socotra* for refusal to obey the lawful orders of the captain. A summons was accordingly issued for the surgeon to appear at H.B.M.'s Police-court, Shanghai, in that he did on Oct. 21st, 1902, refuse to obey the lawful command of the captain of the s.s. *Socotra*. Dr. Paterson tried to obtain legal assistance in Shanghai but failed owing to want of ready money. Fortunately there was a copy of the Merchant Shipping Act of 1894 on board.

On being arraigned before the magistrate the defendant inquired whether he was charged with a civil or a criminal offence. The magistrate replied that "the offence was one in respect of which defendant was liable to imprisonment without hard labour for a term not exceeding four weeks, or in the discretion of the court to a fine not exceeding two days' pay. It was a criminal offence." The defendant, while admitting that he refused to obey the captain's orders, denied that the order was a lawful one and quoted Section 187 of the Act of 1894 which says: "A captain shall not leave or cause to be left behind a seaman in a foreign port." He further pleaded that the by-laws in question were extraneous matter pasted on the articles and quoted Section 122 of the Merchant Shipping Act which says that "the consent of the whole crew must be obtained to any alteration in the ship's articles." He denied that the company had his consent. Finally, if he did sign them, he signed them under protest and had a verbal promise releasing him from this clause in the articles, evidence of which would be forthcoming. The magistrate did not decide the case on the point of fact as to whether or not the defendant had this verbal promise, but on a point of law as to whether the by-laws of the company could override the articles prescribed by the Merchant Shipping Act. He decided that the by-laws could not do so, were in law *ultra vires*, and dismissed the charge.

The *Socotra* left Shanghai for Manilla on the homeward voyage on Oct. 25th. Just before leaving Dr. Paterson was informed by the company's solicitors in Shanghai that the company would appeal from the police

magistrate's decision. Dr. Paterson then instructed a firm of solicitors at Shanghai who on receiving suitable references undertook to represent him; at the same time he instructed his solicitors in London to do all in their power to stop the appeal, with its attendant risks of a criminal conviction. Mr. F. S. A. Bourne, acting Chief Justice of the Supreme Court of North China and Korea, dismissed the appeal with costs. The company then applied for permission to appeal to H.M. Privy Council in London. His lordship granted permission to appeal on condition that the company paid all the costs of the appeal to the Privy Council, including a sum not exceeding £150 for the costs of the respondent in London. On arriving in London in December, 1902, Dr. Paterson found that his solicitors had demanded an apology from the company on his behalf, the cessation of the prosecution in Shanghai, and such costs as he had then incurred. This demand not being complied with and learning by cable that the company had asked for leave to appeal to the Privy Council, Dr. Paterson instructed his solicitors in London to proceed with an action in the High Court, London, against the company, claiming damages for malicious prosecution.

The company filed its defence to this action on Feb. 26th, 1903. It is as follows:—1. The defendant company did not prefer any complaint as alleged. 2. If any complaint was preferred in the name of the defendants the same was preferred without the authority of the defendants. 3. The complaint referred to was not preferred maliciously or without reasonable and probable cause. 4. The defendant company did not serve any such notice of appeal as is referred to. 5. If any such notice of appeal was served it was not served with the authority of the company. 6. Such notice of appeal was not given maliciously or without reasonable or probable cause. 7. The defendants will object that the plaintiff cannot recover in respect of grievances happening or special damage accruing after the commencement of this action. 8. The defendants, while denying liability, bring into court the sum of £555 and say that it is sufficient to satisfy the plaintiff's claim.

In March, 1903, this sum was taken out of court by the plaintiff and so the action has terminated without a public hearing in court, the company paying also the plaintiff's taxed costs of the action.

## METROPOLITAN HOSPITAL SUNDAY FUND.

AT a meeting of the council of the Metropolitan Hospital Sunday Fund, which was held at the Mansion House on May 12th under the presidency of the Lord Mayor, a vote of condolence with the family of the late Prebendary Kitto was passed on the motion of the Rev. F. C. CARR GOMM, seconded by Mr. J. H. HALE.

Among those present were Sir Joseph Dimsdale, the Bishop of Stepney, Archdeacon Sinclair, Mr. Wakley, Prebendary Ridgeway, and Canon Rhodes Bristow.

The LORD MAYOR announced that, by the King's desire, the Hospital Sunday collection would be taken at St. Paul's Cathedral on Sunday, June 7th. The collections at other places of worship would be made on June 14th. Mr. George Herring, the Lord Mayor said, had again offered to contribute £25,000 provided that £100,000 were raised in the various places of worship. He (the Lord Mayor) would attend the service at St. Paul's Cathedral on June 7th and it would give him the greatest pleasure to receive contributions from anyone who desired to commemorate the visit of their Majesties on such a historic occasion—the first on which the Sovereign had attended St. Paul's Cathedral for the express purpose of benefiting the London hospitals. The whole deficiency of the London hospitals, provided that they were kept under the control of this and similar funds, amounted to £250,000 per annum. This meant that if the Hospital Sunday Fund could raise £100 000 yearly, King Edward's Fund £100,000, and the Hospital Saturday Fund £50 000, assistance from the rates would not be required. Banks, insurance companies, and most of the limited liability companies were entitled to contribute out of their corporate funds towards hospital purposes, and since this fact had been made known nearly every bank in the City had sent him a donation towards the London Hospital. If the banks and the limited liability companies generally could make up their mind to contribute towards one of the three funds for assisting the hospitals the deficiency of £250,000 would soon be made up. According to his promise made at the conference of ministers which was recently held at the Mansion House he had sent out 5000 letters of appeal to the principal residents in the home counties. The King and Queen had consented to attend the service at St. Paul's Cathedral on June 7th and this fact should insure a record collection.

Sir EDMUND HAY CURRIE read the following letter from Mr. George Herring:—

I propose to make the same offer as last year to the council of the Hospital Sunday Fund—namely, I will send a cheque for £10,000, or add one-fourth to the amount collected in all places of public worship. But you are showing such increased energy this year that I must limit the amount to £100,000, so that if the collection exceeds that sum (which I sincerely hope may be the case) I only give £25,000.

Sir HENRY BURDETT said that limited liability companies had now taken the place of private firms to a large extent and if the former would only contribute a due proportion of their profits to charities, as was formerly done by the heads of private business houses, the London hospitals would soon be in a sound financial position.

Archdeacon SINCLAIR said that Sir Edmund Hay Currie was endeavouring to obtain the consent of a number of gentlemen to act as stewards at the service at St. Paul's Cathedral on June 7th. Mr. William Herring had offered to act as a steward and promised to head his list with £1000.

The Bishop of STEPNEY said that the King wished his visit to the Cathedral to be as far as possible of a personal and private character and the object of his presence at the service was to support the Metropolitan Hospital Sunday Fund in the effort which was being made to increase the amount collected. Their business must be to coöperate with the King in making the service at the Cathedral an opportunity for awakening latent interest in the hospitals.

Prebendary RIDGEWAY said that, while desiring to get a large collection at St. Paul's Cathedral, he hoped they would avoid drawing on the congregational collections throughout London. The service at St. Paul's Cathedral was to increase the general interest in the Hospital Fund on the following Sunday.

Archdeacon SINCLAIR said that the object of the service at St. Paul's Cathedral was to reach only those connected with the City and not to appeal to wealthy people outside. The Bishop of Stepney would probably preach the sermon.

On the motion of Dr. J. G. GLOVER a vote of thanks to the Lord Mayor terminated the proceedings.

## THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

A QUARTERLY meeting of this College was held on May 5th, Dr. T. S. CLOUSTON, the President, being in the chair.

The PRESIDENT read the following loyal address which had been prepared for presentation to King Edward on his approaching visit to Edinburgh and which was unanimously approved:—

*To the King's Most Excellent Majesty.*

The humble, loyal, and dutiful address of the President and Fellows of the Royal College of Physicians of Edinburgh. May it please your Majesty,

We, your Majesty's loyal and dutiful subjects, the President and Fellows of the Royal College of Physicians of Edinburgh, desire to offer your Majesty our most hearty welcome on your Majesty's visit to the capital of Scotland. We desire also to thank your Majesty for the honour you have thus conferred on Edinburgh and we earnestly hope your Majesty's stay here will be a pleasure to your Majesty and to Queen Alexandra.

We know the great interest your Majesty has always taken in the profession of medicine and in all those institutions whose object is to cure disease and to mitigate human suffering. This being the work of the Fellows of our College, none of your Majesty's subjects are better able than they to realise the great benefits that have resulted to the sick and to the progress of medicine through your Majesty's example and influence in supporting hospitals, in promoting the public health, and in encouraging the medical profession in its increasing fight against disease. Your Majesty's ancient capital of Scotland stands out in your Majesty's whole realm as a mother city of noble hospitals and great medical corporations and is the seat of the largest medical school in your Majesty's dominions. The College therefore specially appreciates your Majesty's sympathy with medical objects and your Majesty's patronage of medical institutions.

That the Almighty may grant to your Majesty and to your Royal house the blessings of health and happiness is the fervent prayer of your Majesty's most loyal and faithful servants.

The PRESIDENT referred in sympathetic terms to the loss which the College had sustained through the death of Mr. J. Matheson Shaw, the late sub-librarian.

The following Members were admitted by ballot to the Fellowship of the College: Henry Aylmer Dumat, M.D. Edin.; William Thomas Ritchie, M.D. Edin.; John Cumming, F.R.C.S. Edin.; and Alexander Dingwall Fordyce, M.B., Ch.B. Edin.

The Registrar reported that since the last quarterly meeting 52 persons had obtained the Licence of the College by examination.

The Curator's report regarding the work undertaken in the laboratory during the past year showed that 29 workers had been engaged in research, that 1868 specimens had been reported on, and that the expenditure had amounted to £1017.

The Freeland-Barbour Fellowship was awarded to Dr. Alexander Goodall of Edinburgh.

The Treasurer announced that the late Mr. J. Matheson Shaw, sub-librarian of the College, had bequeathed a sum of money for the purpose of founding a lectureship in the College, the lectures to treat of recent advances in medicine.

The draft regulations regarding the various examinations for the triple qualification for the ensuing year were considered and approved.

By vote of the College John Flanagan was suspended *sine die* from his Licence to practise, as granted by the College, and from all his rights and privileges as Licentiate.—Alfred Hunter Goodwyn was expelled from the College and deprived of his Licence to practise, as granted by the College, and of all his rights and privileges as Licentiate.

# Looking Back.

FROM

## THE LANCET, *SATURDAY*, MAY 14, 1825.

### REGULAR PHYSICIANS GRINDING!!

Surely, Mr. Editor, were it not a grave subject, one might laugh to think, that a young man just passed his minority might, by *a mechanical process*, get up a thesis, and grind himself into an M.D., whilst a man of the most extensive education and long practice, who has been educated in London rather than in Edinburgh, and who has legally obtained a degree from Aberdeen, instead of Edinburgh or Glasgow, is to be regarded as an irregularly educated physician. The expense of a medical education is here out of the question, it being well known that the fees of attendance, and living in London are greater; and that the graduating fee at either of the Universities of the North, is about the same,—viz. nearer 30*l.* than 15*l.*, as mentioned by Mr. Brougham in the House.

We have heard much of late of the degenerated state of the medical profession. How is this to be accounted for? Are not as many regularly ground M.D.'s thrown off annually on the world as heretofore? If the latter question be answered affirmatively, will this explain the cause? Or is it owing to the before-named mal-practices of the more northern Universities? In truth I am not inclined to think that the profession is more degenerate, I most heartily concur in the sentiment of Sir ASTLEY COOPER on this subject, who says, "it is consolatory to know that the human frame is better understood at the present epoch by *students*, than it was forty years ago by *professors*. The march of improvement has been most rapid."* I much suspect, Sir, that the croaking has originated with the would-be-lights of the world, and that the unnatural efforts which have been made to protect favoured schools, and self-favouring partizans, have tended much to bring the odium which exists, if there be any, on the profession. I regret the withdrawment of Sir ASTLEY COOPER from the Borough School; he retires, however, full of honours. Let us hope that men will be found with equal zeal for the education of our medical students, to follow up those principles which he, during many years, so ably inculcated.

Admitting for a moment, and that for argument sake only, that a man who has graduated at Edinburgh, after grinding, is the most regularly educated, and that it is a desideratum that all who practise as physicians should, in the first place, grind *secundum artem*. Why not establish a university in London, for the purposes of college education, and for the conferring of degrees? The consequence of such a measure would be, that few of our English students would then go to the north at all, except on the score of saving expence. If, however, we cannot have an university in the British metropolis, where medical students may graduate, let the pupils of the first medical schools be allowed to enter any one of the Scotch Universities, and let them be received as candidates for the *doctorate*, which should be granted to them as the result of successful examination in *real attainments*. Let them be examined in every branch connected with the profession, wherever they may have studied. It is a mere farce to pretend that a man cannot be regularly educated as a medical practitioner in England or in Scotland, and it is worse than a farce to presume that a man is qualified to preside in a consultation with his medical brethren because he has been drilled for a few months to the answering of questions on medical science in Scotch Latin.

* Lancet, vol. i., p. 5.

[1] Excerpts from a letter to the Editor of THE LANCET, signed "R. H. F."

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In 76 of the largest English towns 8608 births and 4618 deaths were registered during the week ending May 9th. The annual rate of mortality in these towns, which had been 15·9, 17·4, and 17·5 per 1000 in the three preceding weeks, declined again last week to 16·0 per 1000. In London the death-rate was 15·7 per 1000, while in the 75 other large towns it averaged 16·1 per 1000. The lowest death-rates in these towns were 8·2 in Willesden, 10·2 in Leyton and in Hastings, 10·3 in Croydon, 10·6 in Kings Norton, 11·0 in Derby, 11·1 in Hull, and 11·2 in Brighton and in Cardiff; while the highest rates were 19·7 in Rochdale, 20·1 in Great Yarmouth, 20·8 in South Shields and in Tynemouth, 20·9 in Liverpool, 21·0 in Oldham, 22·5 in Middlesbrough, and 23·5 in Wigan. The 4618 deaths in these towns last week included 457 which were referred to the principal infectious diseases, against 454, 504, and 518 in the three preceding weeks; of these 457 deaths 137 resulted from measles, 124 from whooping-cough, 57 from diarrhœa, 50 from diphtheria, 48 from scarlet fever, 27 from "fever" (principally enteric), and 14 from small-pox. In Brighton, Reading, Norwich, Plymouth, Devonport, York, Newport (Mon.), and in seven other smaller towns, no death from any of the principal infectious diseases was registered last week; the highest death-rates from these diseases were recorded in Tottenham, Walthamstow, Wolverhampton, West Bromwich, Bootle, Wigan, Oldham, Sheffield, and Rhondda. The greatest proportional mortality from measles occurred in Hornsey, Tottenham, Walthamstow, Wigan, Manchester, Sheffield, and Swansea; from whooping-cough in Tottenham, Northampton, West Bromwich, Coventry, Oldham, Huddersfield, Sheffield, and Rhondda: from "fever" in Bootle; and from diarrhœa in Wallasey. The mortality from scarlet fever and from diphtheria showed no marked excess in any of the large towns. Four fatal cases of small-pox were registered in Liverpool, two in Walsall, two in Leicester, and one each in Bury, Manchester, Rochdale, Bradford, Leeds, and Sheffield. The Metropolitan Asylums hospitals contained 60 small-pox patients on Saturday last, May 9th, against numbers increasing from five to 47 on the ten preceding Saturdays; 17 new cases were admitted during the week, against 22, nine, and 12 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1662, 1700, and 1717 at the end of the three preceding weeks, had further risen to 1730 at the end of last week; 229 new cases were admitted during the week, against 188, 243, and 235 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 262, 280, and 284 in the three preceding weeks, declined again last week to 260, but were 20 above the number in the corresponding period of last year. The causes of 57, or 1·2 per cent., of the deaths in the 76 large towns last week were not certified either by a registered medical practitioner or by a coroner. The causes of all the deaths were duly certified in Portsmouth, Bristol, Nottingham, Salford, Bolton, Leeds, Cardiff, and in 46 other smaller towns; the

largest proportions of uncertified deaths were registered in Smethwick, Liverpool, Bootle, Wigan, Blackburn, Sheffield, and Middlesbrough.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been 17·7, 18·5, and 19·2 per 1000 in the three preceding weeks, declined again to 17·9 per 1000 during the week ending May 9th, but was 1·9 per 1000 in excess of the mean rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 11·5 in Dundee and 14·9 in Aberdeen to 20·1 in Perth and 24·8 in Greenock. The 585 deaths in these towns included 26 which were referred to whooping-cough, 11 to diarrhœa, eight to measles, five to diphtheria, four to scarlet fever, and three to "fever," but not one to small-pox. In all, 57 deaths resulted from these principal infectious diseases last week, against 53, 59, and 57 in the three preceding weeks. These 57 deaths were equal to an annual rate of 1·7 per 1000, which was slightly above the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of whooping-cough, which had been 17, 30, and 32 in the three preceding weeks, declined again last week to 26, of which 14 were registered in Glasgow, four in Edinburgh, and two in Leith. The deaths from diarrhœa, which had been 17, 18, and 11 in the three preceding weeks, were again 11 last week, and included three in Glasgow, three in Dundee, and three in Aberdeen. The fatal cases of measles, which had been seven, four, and seven in the three preceding weeks, rose last week to eight, of which five occurred in Edinburgh and two in Glasgow. The deaths from diphtheria, which had been eight, two, and one in the three preceding weeks, increased again to five last week and included two in Glasgow and two in Edinburgh. The fatal cases of scarlet fever, which had been two, two, and four in the three preceding weeks, were again four last week; of these, two were recorded in Glasgow and two in Paisley. Two of the fatal cases of "fever" occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 109, 129, and 125 in the three preceding weeks, further declined last week to 104 and were slightly below the number in the corresponding period of last year. The causes of 21, or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·5, 24·8, and 25·7 per 1000 in the three preceding weeks, declined again to 25·3 per 1000 during the week ending May 9th. During the past four weeks the death-rate has averaged 25·1 per 1000, the rates during the same period being 16·5 in London and 17·5 in Edinburgh. The 184 deaths of persons belonging to Dublin registered during the week under notice showed a decline of three from the number in the preceding week and included 15 which were referred to the principal infectious diseases, against six, eight, and nine in the three preceding weeks; of these, four resulted from small-pox, four from whooping-cough, three from "fever," two from scarlet fever, one from diphtheria, and one from diarrhœa, but not one from measles. These 15 deaths were equal to an annual rate of 2·1 per 1000, the death-rates last week from the same diseases being 1·7 in London and 2·1 in Edinburgh. The fatal cases of small-pox numbered four last week against three in the previous week. The deaths from whooping-cough, which had been one in each of the three preceding weeks, rose last week to four. The fatal cases of "fever," which had been two, one, and two in the three preceding weeks, increased to three last week. The 184 deaths in Dublin last week included 32 of children under one year of age and 46 of persons aged 60 years and upwards; the deaths of infants slightly exceeded the numbers in the preceding week, while those of elderly persons showed a marked decline. Five inquest cases and two deaths from violence were registered, and 62, or more than a third, of the deaths occurred in public institutions. The causes of ten, or more than 5 per cent., of the deaths in Dublin last week were not certified.

### VITAL STATISTICS OF LONDON DURING APRIL, 1903.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality in the City of London and in each of the metropolitan boroughs. With regard to the notified cases of infectious diseases it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 5·4 per 1000 of the population, estimated at 4,613,812 persons in the middle of the year. In the three preceding months the rates had been 6·5, 6·2, and 5·9 per 1000 respectively. The rates were considerably below the average in Hammersmith, the City of Westminster, Hampstead, Stoke Newington, the City of London, Bethnal Green, and Greenwich, while they showed the largest excess in Chelsea, St. Marylebone, Bermondsey, Wandsworth, Deptford, Lewisham, and Woolwich. The prevalence of small-pox showed a marked increase upon that recorded in the preceding month; of the 48 cases notified during April, seven belonged to Poplar, seven to Southwark, five each to Kensington, Fulham, and Camberwell, and four to Battersea. The Metropolitan Asylums hospitals contained 47 small-pox patients at the end of last month, against seven, five, and 13 at the end of the three preceding months; the weekly admissions averaged 12, having been three in each of the six preceding months. The prevalence of scarlet fever showed a slight decline last month as compared with the preceding month; among the various metropolitan boroughs this disease was proportionally most prevalent in Chelsea, St. Marylebone, Wandsworth, Deptford, Lewisham, and Woolwich. The number of scarlet fever patients in the Metropolitan Asylums hospitals, which had been 1980, 1820, and 1704 at the end of the three preceding months, had further declined to 1685 at the end of last month; the weekly admissions averaged 201, against 212, 205, and 208 in the three preceding months. The prevalence of diphtheria last month was slightly less than in the preceding month; this disease was proportionally most prevalent in Hackney, Shoreditch, Stepney, Poplar, Lewisham, and Deptford. There were 760 cases of diphtheria under treatment in the Metropolitan Asylums hospitals at the end of last month, against 936, 1030, and 903 at the end of the three preceding months; the weekly admissions averaged 105, against 131, 152, and 126 in the three preceding months. Enteric fever was much less prevalent during April than in any recent month; among the various metropolitan boroughs the greatest proportional prevalence of this disease occurred in the City of Westminster, St. Marylebone, Stoke Newington, Holborn, Southwark, Bermondsey, and Lambeth. The number of enteric fever patients under treatment in the Metropolitan Asylums hospitals, which had been 172, 125, and 92 at the end of the three preceding months, had further declined to 53 at the end of the last month; the weekly admissions averaged five, against 22, 13, and 15 in the three preceding months. 10 cases of typhus fever were notified during April, of which eight belonged to the borough of Bermondsey. Erysipelas was proportionally most prevalent in Kensington, Chelsea, St. Marylebone, Finsbury, Shoreditch, and Deptford. The 17 cases of puerperal fever notified during the month included three in Islington, three in Camberwell, two in the City of Westminster, and two in Hackney.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various metropolitan boroughs, the deaths occurring in public institutions having been distributed among the boroughs in which the deceased persons had previously resided. During the four weeks ending May 2nd the deaths of 5596 persons belonging to London were registered, equal to an annual rate of 15·8 per 1000, against 18·2, 16·5, and 15·9 per 1000 in the three preceding months. The lowest death-rates in the several metropolitan boroughs last month were 10·4 in Hampstead, 11·7 in Wandsworth, 11·8 in Lewisham, 12·8 in the City of London and in Camberwell, and 13·2 in Greenwich; the highest rates were 18·1 in St. Marylebone, 18·2 in Southwark, 18·8 in Stepney and in Poplar, 19·1 in Finsbury, 21·9 in Shoreditch, and 22·1 in Holborn. The 5596 deaths from all causes included 622 which were referred to the principal infectious diseases; of these, 270 resulted from measles, 23 from scarlet fever, 64 from diphtheria, 169 from whooping-cough, two from typhus fever, 17 from enteric fever, one from simple continued fever, and 76 from diarrhœa, but not one from small-pox. The lowest death-rates last month from these infectious diseases were recorded in Hammersmith, Fulham, St. Marylebone, Hampstead, Finsbury, Camberwell, and Woolwich; and the highest

## ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING APRIL, 1903.

*(Specially compiled for* THE LANCET.)

| Cities and Boroughs. | Estimated population in the middle of 1903. | Notified Cases of Infectious Disease. | | | | | | | | | | | Deaths from Principal Infectious Diseases. | | | | | | | | | | | Deaths from all causes. | Death-rate per 1000 living. | Deaths of Infants under one year to 1000 births. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Small-pox. | Scarlet fever. | Diphtheria.* | Typhus fever. | Enteric fever. | Other continued fevers. | Puerperal fever. | Erysipelas. | Cholera. | Total. | Annual rate per 1000 persons living. | Small-pox. | Measles. | Scarlet fever. | Diphtheria.* | Whooping-cough. | Typhus fever. | Enteric fever. | Other continued fevers. | Diarrhœa. | Total. | Annual rate per 1000 persons living. | | | |
| **LONDON** | 4,613,812 | 48 | 928 | 545 | 10 | 54 | 2 | 17 | 315 | — | 1919 | 5·4 | — | 270 | 23 | 64 | 169 | 2 | 17 | 1 | 76 | 622 | 1·8 | 5596 | 15·8 | 118 |
| *West Districts.* | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Paddington | 146,032 | 1 | 27 | 9 | 1 | — | — | — | 7 | — | 45 | 4·0 | — | 5 | — | 3 | 7 | — | 2 | — | 1 | 18 | 1·6 | 170 | 15·2 | 112 |
| Kensington | 178,409 | 5 | 31 | 15 | — | 1 | — | — | 16 | — | 68 | 5·0 | — | — | 1 | 1 | 12 | — | — | — | 1 | 15 | 1·1 | 185 | 13·5 | 114 |
| Hammersmith | 115,803 | — | 16 | 11 | — | — | — | 1 | 6 | — | 34 | 3·8 | — | 3 | — | 1 | 1 | — | 1 | — | 3 | 9 | 1·0 | 132 | 14·9 | 91 |
| Fulham | 147,780 | 5 | 26 | 19 | — | 1 | — | — | 4 | — | 55 | 4·9 | — | — | 1 | 1 | 2 | — | 1 | — | 4 | 9 | 0·8 | 162 | 14·3 | 122 |
| Chelsea | 74,169 | 2 | 66 | 3 | — | 1 | — | — | 10 | — | 82 | 14·4 | — | 2 | 1 | — | 2 | — | — | — | 4 | 9 | 1·6 | 99 | 17·4 | 152 |
| City of Westminster | 179,062 | — | 24 | 8 | — | 4 | — | 2 | 10 | — | 48 | 3·5 | — | 6 | 3 | 2 | 6 | — | 2 | — | 1 | 20 | 1·5 | 205 | 14·9 | 95 |
| *North Districts.* | | | | | | | | | | | | | | | | | | | | | | | | | | |
| St. Marylebone | 131,234 | — | 37 | 17 | — | 4 | — | — | 15 | — | 73 | 7·3 | — | — | 1 | — | 6 | — | — | — | 3 | 10 | 1·0 | 182 | 18·1 | 113 |
| Hampstead | 85,197 | — | 11 | 8 | — | 1 | — | — | 4 | — | 24 | 3·7 | — | — | 2 | — | 2 | — | — | — | — | 4 | 0·6 | 68 | 10·4 | 102 |
| St. Pancras | 235,716 | 2 | 48 | 35 | — | 4 | — | 1 | 9 | — | 99 | 5·5 | — | 31 | 2 | 6 | 10 | — | — | — | 4 | 53 | 2·9 | 322 | 17·8 | 114 |
| Islington | 339,137 | — | 46 | 43 | — | 2 | — | 3 | 18 | — | 112 | 4·3 | — | 20 | — | 6 | 18 | — | 1 | — | 6 | 51 | 2·0 | 408 | 15·7 | 129 |
| Stoke Newington | 52,069 | 1 | 3 | 4 | — | 2 | 1 | — | 1 | — | 12 | 3·0 | — | 6 | — | 4 | 5 | — | — | — | — | 15 | 3·8 | 67 | 16·8 | 171 |
| Hackney | 224,082 | — | 45 | 37 | — | 2 | — | 2 | 19 | — | 105 | 6·1 | — | 19 | 3 | 2 | 7 | — | — | — | 1 | 32 | 1·9 | 256 | 14·9 | 111 |
| *Central Districts.* | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Holborn | 57,845 | — | 12 | 5 | — | 4 | — | 1 | 4 | — | 26 | 5·9 | — | 6 | 1 | — | 1 | — | — | — | 1 | 9 | 2·0 | 98 | 22·1 | 72 |
| Finsbury | 99,717 | — | 14 | 8 | — | — | — | 1 | 9 | — | 32 | 4·2 | — | 4 | — | — | 4 | — | — | — | — | 8 | 1·0 | 146 | 19·1 | 121 |
| City of London | 24,539 | — | 5 | — | — | — | — | — | — | — | 5 | 2·7 | — | 1 | — | — | 1 | — | — | — | — | 2 | 1·1 | 24 | 12·8 | 115 |
| *East Districts.* | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shoreditch | 117,513 | — | 9 | 19 | — | 2 | — | — | 12 | — | 42 | 4·7 | — | 13 | — | 3 | 3 | — | 1 | — | 5 | 25 | 2·8 | 197 | 21·9 | 162 |
| Bethnal Green | 130,028 | — | 12 | 12 | 1 | 2 | — | — | 10 | — | 37 | 3·7 | — | 14 | — | 3 | 4 | — | — | — | 2 | 23 | 2·3 | 173 | 17·3 | 111 |
| Stepney | 302,153 | 2 | 40 | 53 | — | 3 | — | — | 23 | — | 121 | 5·2 | — | 30 | — | 5 | 7 | — | 1 | — | 10 | 53 | 2·3 | 435 | 18·8 | 115 |
| Poplar | 169,550 | 7 | 17 | 30 | — | — | — | — | 14 | — | 68 | 5·2 | — | 36 | 1 | — | 10 | — | — | — | 4 | 51 | 3·9 | 244 | 18·8 | 161 |
| *South Districts.* | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Southwark | 207,369 | 7 | 33 | 27 | — | 4 | — | — | 13 | — | 84 | 5·3 | — | 10 | — | 1 | 9 | — | 1 | — | 8 | 29 | 1·8 | 289 | 18·2 | 151 |
| Bermondsey | 129,801 | 3 | 30 | 16 | 8 | 3 | — | — | 6 | — | 66 | 6·6 | — | 6 | 2 | 2 | 3 | 2 | — | — | 3 | 18 | 1·8 | 164 | 16·5 | 113 |
| Lambeth | 307,711 | — | 71 | 17 | — | 6 | 1 | 1 | 25 | — | 121 | 5·1 | — | 12 | — | 1 | 12 | — | 3 | 1 | 4 | 33 | 1·4 | 382 | 16·2 | 118 |
| Battersea | 173,422 | 4 | 38 | 22 | — | 1 | — | — | 14 | — | 79 | 5·9 | — | 11 | 1 | 3 | 10 | — | 1 | — | 1 | 27 | 2·0 | 215 | 16·2 | 140 |
| Wandsworth | 249,678 | 3 | 74 | 29 | — | — | — | 1 | 20 | — | 127 | 6·6 | — | 11 | 2 | 1 | 10 | — | 1 | — | 3 | 28 | 1·5 | 224 | 11·7 | 92 |
| Camberwell | 265,562 | 5 | 61 | 21 | — | 4 | — | 3 | 19 | — | 113 | 5·5 | — | 3 | — | 3 | 7 | — | 1 | — | 2 | 16 | 0·8 | 260 | 12·8 | 94 |
| Deptford | 112,537 | — | 38 | 29 | — | 1 | — | — | 12 | — | 80 | 9·3 | — | 4 | 1 | 8 | 2 | — | — | — | 1 | 16 | 1·9 | 135 | 15·6 | 118 |
| Greenwich | 99,824 | — | 12 | 11 | — | — | — | 1 | 5 | — | 29 | 3·8 | — | 8 | 1 | 5 | 4 | — | — | — | — | 18 | 2·4 | 101 | 13·2 | 82 |
| Lewisham | 136,405 | — | 44 | 21 | — | — | — | — | 7 | — | 72 | 6·9 | — | 7 | — | 3 | — | — | — | — | 3 | 13 | 1·2 | 123 | 11·8 | 87 |
| Woolwich | 121,478 | 1 | 38 | 16 | — | 2 | — | — | 3 | — | 60 | 6·4 | — | 2 | — | — | 4 | — | 1 | — | 1 | 8 | 0·9 | 130 | 13·9 | 123 |
| Port of London | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

* Including membranous croup.

rates in St. Pancras, Stoke Newington, Shoreditch, Bethnal Green, Stepney, Poplar, and Greenwich. The 270 deaths from measles were 13 below the corrected average number; among the various metropolitan boroughs this disease was proportionally most fatal in St. Pancras, Stoke Newington, Holborn, Shoreditch, Bethnal Green, Stepney, and Poplar. The 23 fatal cases of scarlet fever showed a decline of 30 from the average number in the corresponding periods of the ten preceding years; the highest proportional mortality from this disease occurred in the City of Westminster, Hampstead, Hackney, and, Bermondsey. The 64 deaths from diphtheria were slightly less than one half of the corrected average number; among the various metropolitan boroughs this disease showed the highest proportional fatality in Stoke Newington, Shoreditch, Bethnal Green, Deptford, and Greenwich. The 169 fatal cases of whooping-cough were 76 below the average number in the corresponding periods of the ten preceding years; this disease was proportionally most fatal in Paddington, Kensington, Islington, Stoke Newington, Poplar, and Battersea. The 20 deaths referred to different forms of "fever" showed a decline of eight from the corrected average number; among the various metropolitan boroughs the highest "fever" death-rates were recorded in Paddington, the City of Westminster, Lambeth, and Bermondsey, two fatal cases of typhus fever both belonging to the last-named borough. The 76 deaths from diarrhœa were 30 in excess of the average number in the corresponding periods of the ten preceding years; the highest proportional mortality from this disease occurred in Hammersmith, Fulham, Chelsea, Shoreditch, Stepney, Poplar, and Southwark. In conclusion, it may be stated that the aggregate mortality from these principal infectious diseases in London last month was more than 23 per cent. below the average.

Infant mortality in London during April, measured by the proportion of deaths among children under one year of age to registered births, was equal to 118 per 1000. The lowest rates of infant mortality were recorded in Hammersmith, the City of Westminster, Holborn, Wandsworth, Camberwell, Greenwich, and Lewisham; and the highest rates in Chelsea, Stoke Newington, Shoreditch, Poplar, Southwark, and Battersea.

## THE SERVICES.

### ROYAL NAVY MEDICAL SERVICE.

THE following appointment is notified:—Staff Surgeon C. S. Woodwright to the *Victory* and tenders for instruction of Probationary Sick Berth Staff, to date May 18th.

### ARMY MEDICAL STAFF.

Colonel W. J. Fawcett, from Royal Army Medical Corps, to be Surgeon-General, on temporary augmentation. Dated April 1st, 1903.

### ROYAL ARMY MEDICAL CORPS.

Surgeon-Captain (temporary Surgeon-Lieutenant in the Army) H. N. A. Taylor, 3rd Volunteer Battalion the Essex Regiment, is granted the temporary rank of Surgeon-Captain in the Army whilst serving with the regular troops. Dated Feb. 7th, 1903.

### INDIAN MEDICAL SERVICE.

*Bengal Establishment:* Lieutenant-Colonels to be Colonels: Mathew Denis Moriarty (dated Oct. 25th, 1902) and Bartholomew O'Brien (dated Nov. 1st, 1902).

The King has approved of the retirement from the service of the undermentioned officers:—Lieutenant-Colonel Alfred James O'Hara (dated Nov. 2nd, 1902) and Lieutenant-Colonel Alfred William Frederick Street, D.S.O. (dated April 2nd, 1903).

### ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Major F. W. Grant having resigned his appointment in the Volunteers ceases to be an officer in the Army Medical Reserve of Officers. Dated May 9th, 1903. Surgeon-Lieutenant Robert Athelstan Draper, 1st East Riding of Yorkshire, Royal Garrison Artillery Volunteers, to be Surgeon-Lieutenant. Dated May 9th, 1903. Surgeon-Captain Thomas Kay, 1st Lanarkshire Royal Garrison Artillery Volunteers, to be Surgeon-Captain. Dated May 13th, 1903.

### IMPERIAL YEOMANRY.

Royal North Devon (Hussars): William Francis Lucius Austen Holcroft to be Surgeon-Lieutenant under paragraph 30 Yeomanry Regulations. Dated May 9th, 1903. Glamorganshire: Surgeon-Lieutenant R. M. Moynan resigns his commission. Dated May 9th, 1903. 4th County of London (King's Colonials): Surgeon-Lieutenant L. J. H. Oldmeadow resigns his commission. Dated April 2nd, 1903.

### VOLUNTEER CORPS.

*Submarine Miners:* The Tyne Division: Surgeon-Major F. W. Gibbon, from 1st Durham Royal Engineers (Volunteers), to be Surgeon-Major. Dated May 13th, 1903.

*Rifle:* 7th Volunteer Battalion the Royal Scots (Lothian Regiment): Surgeon-Lieutenant A. J. Grant to be Surgeon-Captain. Dated May 13th, 1903. 1st Volunteer Battalion the Royal Fusiliers (City of London Regiment): Surgeon-Lieutenant J. R. Ryan to be Surgeon-Captain. Dated April 28th, 1903. 3rd (Dundee Highland) Volunteer Battalion the Black Watch (Royal Highlanders): Surgeon-Captain W. Kinnear to be Surgeon-Major. Dated May 9th, 1903. Surgeon-Lieutenant W. S. Malcolm to be Surgeon-Captain. Dated May 9th, 1903. 1st Volunteer Battalion the Norfolk Regiment: Surgeon-Lieutenant J. M. G. Bremner to be Supernumerary whilst serving with the Norfolk Volunteer Infantry Brigade Bearer Company. Dated March 14th, 1903. 3rd Volunteer Battalion the Essex Regiment: The promotion of Surgeon-Lieutenant H. N. Taylor to the rank of Surgeon-Captain, which was announced in the *London Gazette* of Feb. 6th last bears date Dec. 30th, 1902. 3rd (Renfrewshire) Volunteer Battalion, Princess Louise's (Argyll and Sutherland Highlanders): Surgeon-Lieutenant W. D. Macfarlane to be Surgeon-Captain. Dated May 9th, 1903. 3rd (Cambridgeshire) Volunteer Battalion the Suffolk Regiment: Surgeon-Captain E. L. Jones resigns his commission. Dated May 13th, 1903. 2nd (South) Middlesex: The undermentioned Surgeon-Lieutenants to be Surgeon-Captains:—E. P. Isaacs (dated April 21st, 1903) and S. F. Holloway (dated April 21st, 1903). 3rd Volunteer Battalion the Gloucestershire Regiment: Frederick St. John Bullen to be Surgeon-Lieutenant. Dated May 13th, 1903. 1st Volunteer Battalion Princess Charlotte of Wales's (Royal Berkshire Regiment): William Maskelyne Parham to be Surgeon-Lieutenant. Dated April 28th, 1903. 4th Volunteer Battalion the Durham Light Infantry: Surgeon-Lieutenant S. W. Plummer to be Surgeon-Captain. Dated April 18th, 1903.

### ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

The Glasgow Companies: James Walker to be Lieutenant. Dated May 13th, 1903. The Manchester Companies: Lieutenant J. Collier to be Captain. Dated May 9th, 1903.

### VOLUNTEER INFANTRY BRIGADES.

Argyll and Sutherland: Surgeon-Lieutenant-Colonel D. W. Currie, 7th (Clackmannan and Kinross) Volunteer Battalion, Princess Louise's (Argyll and Sutherland Highlanders), to be Brigade-Surgeon-Lieutenant-Colonel whilst holding the appointment of Senior Medical Officer of the Brigade. Dated May 13th, 1903. Gordon: Surgeon-Lieutenant-Colonel A. Mitchell, 3rd (The Buchan) Volunteer Battalion the Gordon Highlanders, to be Brigade-Surgeon-Lieutenant-Colonel whilst holding the appointment of Senior Medical Officer of the Brigade. Dated May 13th, 1903. Liverpool: Surgeon-Lieutenant-Colonel G. Westby, 2nd Volunteer Battalion the King's (Liverpool Regiment), to be Brigade-Surgeon-Lieutenant-Colonel whilst holding the appointment of Senior Medical Officer to the Brigade. Dated April 4th, 1903.

### EDINBURGH COMPANY ROYAL ARMY MEDICAL CORPS VOLUNTEERS.

Former members of this company will be interested to know that the instructor, Staff Sergeant Lloyd, R.A.M.C., who has been attached to the Edinburgh company of medical students for the past 14 years, is about to retire into civil life. It is proposed to mark the occasion by presenting to the instructor some suitable expression of the friendly relations which have existed for so many years between him and the members who have passed through his hands. Towards this end any subscriptions sent by former members will be received and acknowledged by Major Hepburn, M.D., R.A.M.C.V., Anatomy Department, University of Edinburgh.

### THE ROYAL MILITARY TOURNAMENT.

The tournament which opens at the Agricultural Hall to-day (Friday) promises to be in no way behind its predecessors. The *pièce de résistance* this year will represent the Delhi Durbar and this fact alone should be the means of

securing a "full house" every day. As our readers know, the military charities benefit largely by this annual tournament.

# Correspondence.

"Audi alteram partem."

## ASEPTIC AND ANTISEPTIC SURGERY.

*To the Editors of* THE LANCET.

SIRS,—The discussion on the above subject in THE LANCET of February and March,[1] now coming to hand here, appeals to the surgeon no matter in what part of the globe he may be practising his art. It may be taken for granted that any radical advance in surgery must be of world-wide application. Such is true of antiseptic surgery but the champions of aseptic technique have still their case to prove. It would be interesting to know how they would apply their system in the following circumstances. Since last autumn the survey has been in a series of temporary camps in the Ashanti jungle between Obuassi and Kumasi. The bush is cleared and the camp built and we enter into occupation within the week. Each of these camps is occupied for a period varying from four to five weeks only, so of course everything is in the rough. Ever since we left Obuassi the labourers, of whom there are several hundreds, to a greater or less extent have been suffering from sloughing phagedæna, which Manson[2] writes is with difficulty to be distinguished from hospital gangrene. The carriers of infection in these cases are flies, as I expect to be able to bring evidence to prove at some future date. Our water-supply is so bad (although it is the best available) that the drinking-water is always coloured even after careful boiling and filtration, sinks in the upper compartment of the Berkefeld filters, and upon one occasion after filtration turned rose-pink permanganate solution instantly brown.

On Monday, March 23rd, at 9 P.M., in the midst of a tornado with rain pouring down as it only can in the tropics, four men arrived at our camp carrying a hammock composed of a bambco and some sacking in which lay huddled up a man with his right foot cut almost completely through horizontally, opening up the ankle-joint from the inner side outwards. The man was soaked through, lying in a pool of blood and dirty water, and was very much collapsed. The injury was caused, I was informed, by an axe which had slipped while the man was working with one of the clearing gangs further down the line. He had been brought for six miles or more through the rain-storm and dark over a roughly cleared track. On examination by the light of a hurricane lamp I found a tremendous gash full of leaves and dirt with which an endeavour had been made to arrest hæmorrhage. The ankle-joint was sheared clear through, the stroke having severed the posterior tibial artery which was feebly bleeding. The wound was well washed out with 1 in 2000 perchloride lotion,[3] and dressed with sal alembroth gauze and chinosol absorbent wool (the only antiseptic dressings available). A wisp of moistened gauze was also wrapped round the leg below the knee to disinfect the skin should it be found necessary to proceed to amputation. The man was then carried over from the messroom and put for the night into a little hut which had been built at the end of the white camp to contain a lunatic suffering from guinea-worm abscess. The patient had to be moved outside with his guard to make room.

Next morning, as soon as things could be got ready after daylight and permission to do what was necessary obtained from the patient, chloroform was given and the injured limb was thoroughly examined. The lower part of the foot was dead and cold, the ankle-joint was injured and exposed, and the tarsus was divided horizontally. Not sufficient skin could be obtained to make an external lateral flap at the ankle, so amputation was performed at the seat of election, as it was hoped that at least a peg-leg might be available in the country somewhere. As no gut was obtainable for ligatures the main arteries were tied with silk soaked in perchloride lotion (1 in 1000) and the smaller bleeding points were commanded with pressure forceps, which were afterwards twisted off. The ends of the silk ligatures were led outside, and a gauze drain was inserted into each angle of the flaps. The whole stump was dressed with sal alembroth gauze and chinosol wool. The operation was carried out in the paymaster's hut, the patient lying on a litter made of split green palm rib, supported on a folding table and a packing case. The paymaster took over the chloroform after the patient was under and the junior assistant engineer, who was convalescing from an attack of fever, manipulated the leg as directed. When the patient came to from the chloroform he was tied firmly to the litter with creepers so that he could not move, while the stump was rested gently on a pillow made of straw bottle-cases and newspapers. In the evening his pulse was good though quick and his temperature only 99° F. A watchman was left to guard him during the night and to give him drink or to attend to him generally. Next morning I was informed that the patient had undone his bonds, and wriggled himself loose and had got his dressing off. I found the stump partly lying within the dressing but freely exposed to the air and the flies buzzing round. The surface was at once washed with perchloride lotion (1 in 1000) and a 1 in 2000 lotion was syringed into the angles of the flap. That evening the temperature was 100·2° F. and next evening 101·4°, but the discharge was serous and not offensive in the least. This was the highest temperature reached. On Friday, March 27th, the dressings ran out, but the principal medical officer at the fort at Kumasi kindly gave me two rolls of absorbent wool and some old field dressings. These latter were split up and the contained gauze from them and the absorbent wool were soaked in perchloride lotion (1 in 2000) and dried in the sun. With these the stump has been since dressed and for the last two days the evening temperature has not been above 99° F. The stump looks healthy, there is very little discharge, and the man is free from pain and eats and sleeps well.

The future progress of the case is of course doubtful in a country where apparently healthy skin breaks down into gangrenous ulcers and where Manson advises that no operative interference, unless imperatively necessary, should be undertaken on account of the danger of tetanus. To sum up then, by the use of antiseptics (1) a wound filled with dirt of all kinds does not cause general infection; (2) an operation conducted with scratch materials and scratch assistants gives a healthy stump; (3) a stump is exposed to the attacks of flies in an insanitary hut but does not become infected to any extent; and (4) dressings and water of doubtful character have been used without evil effect. Can our aseptic champions suggest any feasible procedure by which such results could be obtained by their methods? My antiseptic outfit, with the exception of four dressings of gauze and wool, consisted of a four-ounce stoppered bottle of perchloride soloids, easily carried in the breast pocket.

I am, Sirs, yours faithfully,

CHARLES S. PATTERSON, M.B. Edin., M.R.C.S. Eng.,
Medical Officer Obuassi Kumasi Survey, Gold Coast Government Railways.

Eighty-two Mile Camp, March 31st, 1903.

[1] THE LANCET, Feb. 14th (p. 475) and 28th (p. 611), and March 7th (p. 685) and 21st (p. 837), 1903.

[2] P. Manson: Tropical Diseases, p. 607.

[3] Made with soloid hydrarg. perchloride (B. and W.) and the boiled filtered water of doubtful character.

## THE SPITTING NUISANCE—SPITTING IN PUBLIC-HOUSES.

*To the Editors of* THE LANCET.

SIRS,—As a means for the prevention of tuberculosis it is chiefly important that spitting should be stopped in places where it is most likely to do harm. Of all places of resort probably the public-house is the most fruitful source of phthisis. It has been found that in France the amount of phthisis varies with the amount of alcohol drunk and the English Registrar-General has shown that public-house servants suffer from this disease to a far greater extent than any other class of the community. It is these servants who sweep out the bars. In poor districts it may be safely said that every public-house bar is visited by at least one consumptive every day and he probably spits on the floor while there.

I have formed the opinion, on evidence as conclusive as it seems possible to get, that the majority of adult male consumptives in my own district have derived the infection from the public-house. It is obvious, then, that of all places where it is desirable to stop spitting the public-house

is by far the most important. Yet I am informed that the terms "public hall, public waiting-room, or place of public entertainment," as used in the Glamorganshire by-law against spitting, do not include "public houses." If so, it is most important that these should be specifically included in any by-laws made for the County of London. Besides being pre-eminently desirable it is, I believe, perfectly practicable to stop spitting in public-houses. They are under continual police supervision and it is to the interest of the landlord and his servants to keep their bar clean. The publicans are becoming aware of the danger they run from the infection of phthisis and many of them would be glad to join in an effort to reduce this danger.

In the borough of Woolwich, with very few exceptions, the licensed victuallers have posted up in their bars notices requesting customers not to spit on the floor, but they say that at present they are powerless to enforce such notices. A by-law would effectually strengthen their hands. I venture to say that any by-law against spitting which does not apply to public-houses will produce but an insensible effect in the diminution of tuberculosis.

I am, Sirs, yours faithfully,

SIDNEY DAVIES,
Woolwich, May 12th, 1903. Medical Officer of Health.

## CERTIFYING FACTORY SURGEONS.

*To the Editors of* THE LANCET.

SIRS,—It has been pointed out to me that my letter of May 9th might infer an intention on the part of our association to take advantage of the Home Secretary's presence at the annual dinner to elicit an expression of opinion on the question of fees paid to certifying surgeons. As I must acknowledge the possibility of such an interpretation I take the first opportunity open to me of disclaiming any such intention, anything of the kind indicated being so obviously out of place at a purely social function. The view I expressed in the last sentence was purely a personal one of general application and not to be regarded as authoritative.

I am, Sirs, yours faithfully,

W. F. DEARDEN,
Honorary Secretary, Association of Certifying Factory Surgeons.
Manchester, May 11th, 1903.

## "GOUTTES DE LAIT."

*To the Editors of* THE LANCET.

SIRS,—Perhaps you would be so good as to devote a few lines of your valuable space to informing your readers that at a meeting of the staff of the Royal Hospital for Children and Women held on May 4th the following motions were unanimously carried:—

1. That this committee approve of the principle of an infants' milk depôt.
2. That if the borough council establish a depôt in the immediate neighbourhood of this hospital the staff will do what they can to induce patients to use it.

These resolutions were approved by the committee of management at a meeting on May 5th and the secretary was instructed to prepare a petition to this effect to be laid before the borough council of Lambeth.

I am, Sirs, yours faithfully,

J. HOUSTON, Secretary.
Royal Hospital for Children and Women, Waterloo Bridge-road, S.E., May 7th, 1903.

## THE AERIAL CONVECTION OF SMALL-POX.

*To the Editors of* THE LANCET.

SIRS,—I should feel much obliged to any of your readers who would furnish me with the reports upon, or well-authenticated examples of, the spread of small-pox around small-pox hospitals by aerial convection. The well-known cases of the Fulham Hospital, the Sheffield, Bradford, Warrington, and Glasgow reports, as well as Dr. J. C. Thresh's recent interesting example, I am, of course, already acquainted with. In connexion with this request I may express a hope that the Local Government Board may eventually see its way to publish annually a *résumé* of the many valuable annual reports furnished by the medical officers of health throughout the country. The Board receives a copy of each, but many of these reports are not printed and even then they are not obtainable; moreover, it would be practically impossible to read them all. THE LANCET gives interesting reviews on the most important cities; this does not, however, meet the need I with others feel of an annual volume giving a *résumé* of the experiences in sanitary problems. Some years ago I wrote to THE LANCET advocating such a publication by the Local Government Board and subsequently Dr. Paget informed me that he had already done so. Perhaps I may also mention that the late Sir Richard Thorne, chief medical adviser to the Local Government Board, wrote to me that the proposal had his most cordial good wishes but that he feared the expense of such a publication would stand in the way. The financial loss to the Government would, however, be well repaid by the educational gain to the medical officers of health. The solution of many important public health questions is at present retarded by the difficulty of obtaining the experiences of other workers.—I am, Sirs, yours faithfully,

ANTONY ROCHE, M.R.C.P. Irel.,
Professor of Public Health, Catholic University Medical School.
Dublin, May 10th, 1903.

## "RETURN" CASES OF TYPHOID FEVER (?).

*To the Editors of* THE LANCET.

SIRS,—I write rather to elicit than to contribute information on a subject of considerable practical importance. While it has long been known that the exit of a scarlet fever patient from hospital is occasionally followed by the admission of other cases from the home to which that patient has returned, I am not aware that definite statements can be made as to the period at which cases of typhoid fever cease to be foci of contagion and sources of real danger to the community. A patient, A, for instance, is admitted to hospital with anæmia and after nearly three weeks' residence the temperature rises and typhoid fever develops. In the ward are two patients, B and C, convalescent from typhoid fever. On the day of A's admission B is in her third week of normal temperature and C in her fourth week. A is said to have been in close proximity to B. Had B or C gone to A's home and A been admitted three weeks later with symptoms of typhoid fever, A must, I think, fairly have been considered as a "return" case. And yet medical officers of health assure me that such cases are practically unknown and that their experience shows that during convalescence typhoid fever is not transmissible. On the other hand, I notice that Professor Osler (fourth edition of his "Principles," p. 31) states that "bacilli may be present in the urine for years after the attack" and mentions that "during 12 years 20 physicians, nurses, or patients contracted the disease in his wards" (p. 5). Presumably, from the large number of cases under Professor Osler's care, none of these patients contracted the disease from a convalescent.

I am, Sirs, yours faithfully,

A. A. WARDEN,
Physician to the Hertford British Hospital, Paris.
Paris, May 6th, 1903.

## THE STUDY OF VENTILATION.

*To the Editors of* THE LANCET.

SIRS,—Many years' practical experience as a sanitary engineer induces me to ask you kindly to insert this letter suggested by Brigade Surgeon-Lieutenant-Colonel D. Boswell Reid's communication in THE LANCET of May 2nd, p. 1264. I fully agree with him that fire is the best purifier of contaminated air and assert that the simpler the method of governing the movements of air the better is it for all concerned. It is unfortunate, I think, that in this country a great many people appear to hold exactly the opposite view, forgetting to bear in mind the great difficulty—I had almost written impossibility—of controlling the movement of air, which is, say, 12 feet above the floor level. Ventilation and warming should go hand in hand and one and the same person, I maintain, should provide for both requirements, and I am more convinced than ever that it will be found that properly constructed fireplaces with simple open fires will give the best result from both the point of view of comfort and that of health.

I was informed quite recently that in order to provide a permanent system of reliable and beneficial ventilation the London School Board have out of nearly 300 schools scarcely two schools with the same system, while in the infant schools the best results are obtained with open fires. A very interesting annotation in THE LANCET of Feb. 28th,

p. 604, drew your readers' attention to evils arising from cooking meat in the oven of a close fire range and the loss people suffer by not using an open fire for cooking meat, &c., in front of it. It is impossible to roast properly in front of a close fire range and there is scarcely a house in which close fire ranges are used but that the atmosphere at the time of cooking a joint gives immediate knowledge of the fact directly one enters the house. I do not despair, however, of seeing at no distant time an open fire range that shall be economical in use in every way and free from the reproach of committing a sin against the cleanliness and purity of the air. I trust that further contributions will be made to THE LANCET upon this very important subject.

I am, Sirs, yours faithfully,

May 5th, 1903. D. T. BOSTEL, Senr.

## FREE ANTITOXIN TO THE MEDICAL PROFESSION.

*To the Editors of* THE LANCET.

SIRS,—With reference to remarks which have recently been made in THE LANCET *re* the above I should be glad if you will allow me to say that, so far as I know, the urban sanitary district of Swinton and Pendlebury was the first in this country to adopt the practice of gratuitously supplying antitoxin to its local medical practitioners, such course having been taken upon my recommendation early in the year 1901.

I am, Sirs, yours faithfully,

SAMUEL HOSEGOOD,
Swinton, Manchester, April 29th, 1903. Medical Officer of Health.

*** In our issue of May 2nd we published a letter from Mr. E. C. Bousfield stating that nearly six years ago the then vestry of Camberwell commenced the free distribution of antitoxin.—ED. L.

## JACOBI'S ATLAS OF SKIN DISEASES—SMALL-POX AFTER VACCINATION: A CORRECTION.

*To the Editors of* THE LANCET.

SIRS,—May I request you to insert in your esteemed journal the following remarks which I feel obliged to make in reply to Dr. C. Killick Millard's letter published in THE LANCET of April 25th, p. 1197, under this heading? I regret my delayed reply which has been due to Dr J. J. Pringle's illness.

Dr. Miliard's criticism refers solely to Plates XXXV*a*–XXXV*e* and the corresponding text which have been added by Dr. J. J. Pringle without my knowledge and authorisation. For this reason I refrain from any comment on Dr. Millard's unkind references to the "German author" and refer him to the "English translator."

I am, Sirs, yours faithfully,

Professor E. JACOBI,
Director der Dermatolog. Universitäts-Klinik.
Freiburg-i.-Breisg., May 12th, 1903.

*To the Editors of* THE LANCET.

SIRS,—I am greatly indebted to you for the kind review of the Portfolio of Dermochromes by Professor Jacobi, for the English adaptation of the text of which I am responsible. The statement which you indicate in the addendum which I made to Professor Jacobi's text, that variola does not occur in people who have been vaccinated, is, I admit, too absolute and will be amended in the second edition.

I am, Sirs, yours faithfully,

Lower Seymour-street, Portman-square, W., J. J. PRINGLE.
May 13th, 1903.

## CONICAL CORNEA.

*To the Editors of* THE LANCET.

SIRS,—The recently circulated *brochure* by Sir Anderson Critchett on the above subject contains some statements which I think ought not to be allowed to pass without modification. The author's skill in the management of cases of this disease is evidently not equalled by his knowledge of the literature of the subject and with a little trouble he might have ascertained what others had done in the same field with the cautery long before the date (1895) of his communications to the medical press. If he will only turn to the *British Medical Journal* of Feb. 23rd, 1889, he will find a short paper read before the section of ophthalmology at the Glasgow meeting of the British Medical Association in the previous year, in which I refer to the works of the late Dr. E. Andrew and Mr. W. J. Cant on the use of the cautery and in which it is stated that "the plan adopted by these operators differs in at least one important point from the method employed in the cases which I am about to relate. The essential difference consists in the fact that the two surgeons named make a point of opening the anterior chamber so as to allow a continuous drainage of the aqueous for a prolonged period and so purposely use a needle capable of penetrating the corneal tissue; whereas I hold that complete penetration of the cornea with the discharge of the aqueous is a *result to be avoided* as unnecessary and dangerous, and believe that the same object as regards the reduction of conicity can be attained without the escape of the fluid." Yet, Sir Anderson Critchett says in his pamphlet that "till about three years ago the universally accepted plan of applying the cautery in cases of conical cornea was to use it almost at red heat and to *persevere until a spurt of aqueous showed that the anterior chamber had been penetrated.*" My first case was operated on in 1886—14 years before the time mentioned by Sir Anderson Critchett. I do not think therefore that he can claim either priority in, or "initiation" of, this method of treating conical cornea, and I am sure that he would be the last willingly to deprive benighted provincial surgeons of the few laurels that they may be able to cull as against their more fortunate metropolitan *confrères*.

I am, Sirs, yours faithfully,

Liverpool, May 11th, 1903. RICHD. WILLIAMS.

## SUBSTITUTION IN THE SPIRIT TRADE.

*To the Editors of* THE LANCET.

SIRS,—From the answers given by the Chancellor of the Exchequer in reply to questions by Mr. T. M. Healy on Thursday last it is apparent that the dangers attendant on the use of promiscuous materials in the manufacture of potable spirits, more especially of so-called "Scotch whisky," have not yet been recognised in official circles. The significance of Mr. Ritchie's statement that "no doubt beet molasses is used to some extent" may not be quite clear to many medical men at first sight and I therefore venture to trespass on your valuable space in order to explain the full bearing of his admission. Beet molasses constitute the residue or dregs of beet sugar manufacture; they differ from sugar-cane molasses in that they contain a very large percentage of substances of a basic and quasi-alkaloidal nature. The substances in question are fatty amines, bases closely allied to the ptomaines, and bases of the pyridine series. The percentage of these bases in beet molasses is so high that some of them or their derivatives are actually obtained on a manufacturing scale from this source. The poisonous nature of some of these bases is well known; it is further a matter of common knowledge that it is next to impossible to remove them completely from spirit by any known process. And yet the Chancellor of the Exchequer calmly admits that "no doubt beet molasses is used to some extent." Comment is needless.

In reply to another question put by Mr. Healy Mr. Ritchie gave a reply calculated to convey the impression that chemical analysis was not able to distinguish between various classes of spirit. This reply is, in my opinion—and I may say that I have a fairly extensive experience in this connexion—based on erroneous information and is to a great extent misleading. That chemical analysis cannot distinguish in *all* cases I readily admit, but is there any branch of food analysis of which the same may not be said? That it (chemical analysis) can distinguish in many cases between different spirits, particularly between patent still spirit and "all-malt" whisky, is nevertheless a fact which my own personal experience fully confirms. Quite recently I have examined several specimens which are described and blended in such a manner as to lead the purchaser to believe that they are genuine "all-malt" Scotch whiskys, and these, by the analytical figures alone, were plainly proved to be nothing of the kind. In several cases, also, I have been able, judging by taste and the analytical figures combined, not only to show that the articles were falsely described, but also to determine the material from which these spirits were manufactured. With a little research

on the chemistry of whisky, together with a number of standards obtained by an examination of the greater number of the spirits actually produced and blended, it would, in my opinion, be by no means difficult to stop the nefarious traffic which is now proceeding. I inclose my card.

I am, Sirs, yours faithfully.

May 11th, 1903. "EXPERT."

## A QUERY IN EMBRYOLOGY.

*To the Editors of* THE LANCET.

SIRS,—I should be much obliged if any of your readers could throw some light on the following occurrence. A blue Persian pedigree she-cat was sent to an equally pure-bred tom of the same species on Feb. 20th. She remained there from the 20th (a Friday) till the following Monday, the 23rd, and, according to the owner of the sire, was served at least twice. Her kittens would have been due on or about April 27th. On the day after her return home she was seen in the garden in company with a black-and-white tabby tom. Pregnancy duly went on but the kittens were born on May 2nd. They were six in number and were all coarse-made, big-boned, and black-and-white. Was she impregnated by the blue tom? If so, was a second impregnation effected by the black-and-white tom and could the spermatozoa of the latter have destroyed those of the blue tom? Or was it simply a case of "maternal impression"? Or was there no impregnation by the blue tom and an ordinary impregnation by the black-and-white? Why was delivery delayed nearly a week? I may add that the cat has been put to the same blue sire on two previous occasions and has had two perfectly coloured blue litters as the result.

I am, Sirs, yours faithfully,

May 11th, 1903. OXON.

## A POINT IN THE SELECTION OF THE HONORARY MEDICAL STAFFS OF PROVINCIAL HOSPITALS.

*To the Editors of* THE LANCET.

SIRS,—The question as to the desirability or otherwise of honorary members of the medical and surgical staffs of provincial hospitals (other than cottage hospitals) being in partnership together is one which arouses interest in certain towns and one on which an opinion from THE LANCET would be of service. In the case of the large hospitals in London and the larger cities no such thing is now possible, I believe, whilst in the more important provincial hospitals there is a rule prohibiting such partnerships. The question arises particularly in such cases as the following. A small town develops in the course of time into a large one, the centre of a district. In the first place, a small hospital or dispensary has arisen, worked by two or three medical men. With the growth of population and importance this has evolved into a comparatively large infirmary; and the staff, whilst still maintaining the status of general practitioners, are exceptionally favoured in public estimation. There then develops, naturally, a tendency on the part of the staff to work the institution for their own private benefit and to keep out outsiders. Having almost complete influence with the committee of governors, many of whom know nothing of medical matters, this can often be done. Rules are framed which put difficulties in the way of outsiders, whilst a partner or relation of one of the staff may be afforded exceptional facilities. Undoubted abuses occur. I know of one case where a firm of three members practically managed a county infirmary for many years and were enabled in this way largely to monopolise the general practice of the district.

It must be remembered that it is not by any means necessarily the best men in point of qualification who secure these appointments, though possibly after years of experience obtained from the appointments they may eventually become so. Also, the staff are in open rivalry as *general practitioners* with their less favourably placed brethren around. Thus arises much jealousy, so that outside practitioners often prefer to send their patients to an infirmary at a distance rather than to the one at home, so impairing the usefulness of the institution. It appears to me that by adopting a rule prohibiting the system of partnership on the staffs of infirmaries much good would result in checking these evils. Of course, my remarks do not apply to cottage hospitals or to districts where a few medical men only are available, but to the larger centres of population with plenty of medical material ready and anxious to serve.

I am, Sirs, yours faithfully,

May 8th, 1903. M.D.

*** Undoubtedly the staff of a hospital ought to be selected on its merits. The rule that no two members of a firm should be upon the staff together might in many cases prevent nepotism even if, in a few cases, it might exclude the fittest candidate.—ED. L.

## THE FOURTEENTH INTERNATIONAL CONGRESS OF MEDICINE.

(FROM OUR SPECIAL CORRESPONDENT.)

### THE HOTEL AND LODGING HOUSE SCANDAL.

Madrid, May 4th.

IF only for the sake of future congresses and as a warning it is necessary to allude again to the question of hotel and lodging accommodation. This is the more indispensable as on the present occasion many regrettable incidents have occurred. The offices of the Congress have been disturbed by the sounds of violent quarrelling and protestation. Abusive words have been used and quite a scandal has been created. In such circumstances some explanation is necessary, particularly as rumour and gossip are apt to place matters in their worst light. As explained before, M. Ulrich Frei had been engaged by the organisers as a paid manager or clerk to look after the interests of the foreign members of the Congress. He had acted in a similar capacity during the congresses held in Paris in 1900. The work soon became terribly absorbing and had to be attended to night and day. The Congress was to meet at a most inappropriate date. First of all the Easter holidays, when it is the custom to crowd into the large towns, were scarcely terminated. Then many travellers were returning to Madrid from the Seville and other Easter fairs. The Congress met on April 23rd and on the 26th there were general elections throughout Spain and a general election always draws to the capital a large number of political wire-pullers and others. The executive committee of the International Congress of Medicine also clearly saw that more members would attend than had been expected. It was given to understand that the capacity of the hotels in Madrid would not suffice to accommodate so many persons coming to the capital for different reasons but at the same time. At this stage what seems to me to be a great blunder was committed. The executive committee should have washed its hands completely of the question of hotel and lodging accommodation or else should have kept the matter absolutely and in every detail under its own control. The safest course to pursue and that which is very generally adopted for similar congresses is to institute, many months in advance, an inquiry as to the number of rooms and the prices to be charged which the different hotel and lodging-house keepers think that they will have vacant at the date indicated. These details being printed should be sent to every member of the congress as soon as he notifies his intention of attending and then every member, without the intervention of any agency whatsoever, knows where to go or to write for rooms. The congress committee simply gives all the information it is able to gather. At most the committee stipulates with the hotel keepers that they will keep a certain number of their rooms free at the price mentioned and not make other contracts with agencies or individuals. If the committee does not content itself with merely giving information it will need much business capacity and very strict supervision before it can safely venture itself to supply the rooms. As I said at the time, to the "corner" in hotels formed by the travelling agencies the medical men had opposed a collective organisation of their own. This certainly would have been a very public-spirited and admirable thing to do. I was misinformed and like most members of the Congress I was deceived by appearances.

When the work became overwhelming for the reasons described above M. Frei asked the directors of the Congress whether he could as an individual and apart from the

Congress treat with a travelling agency for the supply of rooms to the members of the Congress. Trusting to M. Frei's well-known and established honour and above all believing that it would be of help to the foreigners who were coming to Madrid, the committee gave its consent to this arrangement. The one prevailing desire was to help the foreigners and to prevent their being exploited by the hotel keepers. The idea was that the agency and not the Congress would ask members to state what sort of rooms they required and to send 50 francs in advance. The agency was then to go to the hotels and to treat for the rooms telling the hotel keeper to add to his usual charge 10 per cent. so as to cover the working expenses. This charge was made openly, there was no attempt to conceal the fact, but it was always held to have been done outside the Congress and not as part of the Congress management. This was the theory; what actually happened and other places to make inquiries and in discussing the prices doubtless these poor touts stipulated for a commission for themselves as apart from what the agency was to get. The door was thus thrown open to all manner of jobbery.

But now another blunder was committed which brought the whole affair to grief. In all such matters of organisation success mainly depends on extreme simplicity in the method of procedure and in the reduction of clerical work to a minimum. Instead of this and before the Service des Logements would consent to indicate to the weary traveller where he might find a room he was called upon to pay for ten days' board and lodging in advance. In exchange for this hard cash he got a number of green coupons. In vain he protested that he was not going to remain in Madrid ten days; it was pointed out that there was on the coupon a printed promise to the effect that the money would be returned for the coupons that were not used. As but few of

The military delegates at the International Congress of Medicine at Madrid. The photograph is taken at the entrance of the Military Hospital.

differed considerably. First of all no one imagined that what was denominated as the Service des Logements du XIVe. Congrès International de Médecine had nothing to do with the Congress. Then as the offices of this lodging service were on the same premises as the Congress itself this fact still further confirmed the impression that it was an organisation formed to protect the members of the Congress from the agencies and not itself an agency in disguise. Of course, this agency was not at all desirous to undeceive the members of the Congress. It was preferable to be considered as officially representing, and authorised by, the Congress. As the accommodation in the hotels did not suffice the agency advertised asking private people to offer the use of one or more rooms in their own homes. This brought a flood of answers, far more than was required. Then some men, miserably paid, were sent round to various small hotels the members of the Congress were likely to stay ten days this meant that the majority would have to waste some of their time and the time of the clerks or cashier in getting such portions of their money back. Then there was the difficulty of changing foreign money into Spanish. However, these were but inconveniences. The first serious difficulty was that the prices charged were not at all cheap, as the members of the Congress had been led to expect. Then when on being shown their rooms and experiencing the accommodation received members of the Congress complained of the exaggerated charges the landlord might, perhaps, explain that he did not receive as much as the charge made for the coupons. A member of the Congress who had come from New Zealand was very bitter. He told me that it was materially impossible for anyone to come a greater distance to attend the Congress. No notice had been taken of this fact or that

he was delegated by a university. He had not been invited anywhere and was left to the tender mercies of the Service des Logements which had provided him with a room for 20 pesetas per day. It was not particularly clean, the service was very insufficient, but he was not going to complain because his landlady was very obliging, did her very best, and was receiving only 15 out of the 20 pesetas that he was paying.

This state of affairs did not last long; the proprietor of a hotel, finding that his visitors were grumbling at the heavy charges, betrayed the whole situation. He said that he was quite willing to accept much less if the payments were made in cash instead of in coupons. Anxious to please his visitors he advised them to go to the Congress office, to get reimbursed for their coupons, and then to deal directly and at a cheaper rate with him. No sooner had one hotel keeper done this than others thought themselves obliged in self-defence to follow his example. Then lodging-house keepers and others began to do the same thing. Thus suddenly and unexpectedly a tremendous rush took place and a very large number of members of the Congress wanted to be reimbursed for their coupons. Of course, this was unexpected. Measures had been taken to reimburse the value of a limited number of coupons but a wholesale rush of this description had not been anticipated. At first the claims were readily met but after a while the money in hand ran out and a panic ensued. A story got about that coupons had been forged and that money had been given to the bearers of false coupons. It was even stated that 7000 pesetas had been obtained in this manner. Now the lodging-house keepers got alarmed and some refused to accept the coupons and in one or two cases threatened to turn their visitors out. Thus there were some members of the Congress who could neither get reimbursed for their coupons nor lodged for them. They were therefore obliged to pay twice—once for the coupons and once again in cash to their landlords. It may well be imagined that such a situation became intolerable. An appeal was now made to the Governor of Madrid who sent a commissioner of police to make inquiries. But the commissioner of police did not find anything wrong. No forgeries whatsoever had been committed, no false coupons had been presented, and no claims had been discarded or payments refused. At one moment the management was short to the extent of 7000 pesetas; the payments ceased for a while till this amount could be procured, but there were no repudiation of any liability entered into and no reason for arresting anyone. Inquiring of the secretary-general of the Congress I was informed that every penny would be reimbursed. The honour of the country is engaged and not a penny will be withheld. But all the same big blunders have been committed and these are all the more regrettable as nothing could have been more cordial, more obliging, or more courteous than the general disposition of all the Spaniards connected with the Congress. No people could possibly have been more anxious to please. Business ability and foresight were evidently wanting; kindness of heart and good feeling were there in abundance.

## THE SECTIONS.

### MEDICINE.

At the meeting of this section on April 28th a paper was read by Dr. JULIUS GUEZDA of the clinique of Professor Leyden in Berlin, on "Salocreol." Salocreol, he said, was a preparation which was derived from beech tree tar and which contained all the various phenols of this tar combined with salicylic acid. It formed an oily fluid insoluble in water but readily soluble in alcohol or ether. By the action of alcohols as well as by the organism salocreol was saponified into its components, one of which (salicylic acid) appeared in the urine as salicyluric acid, the presence of which could easily be proved with ferric chloride, when a violet colouration occurred. The primary idea in producing salocreol was to obtain a compound which could be applied *locally* in acute rheumatism. It was thought that the untoward effects of salicylic acid on the heart and kidney would be diminished if the salicylic acid were at the moment of penetration through the skin to combine at once with the glycocoll of the proteids of the rheumatic exudation. As the beneficial effect of phenol injections into hydroptic joints was a well-known fact, so there could be well expected an increased action by a combination such as salocreol. The trials with salocreol which were performed in the clinique of Professor Leyden at Berlin gave very good results and while in regard to acute rheumatism affecting the joints sufficient experience had not been obtained, there was observed a very prompt action of salocreol in cases of erysipelas. The patients experienced in the parts affected by erysipelas an immediate relief as regards the tension of the skin and there were cases in which the utterly closed eyes could be partially opened in 12 hours. If the tissues in the immediate neighbourhood of the part affected with erysipelas were treated with salocreol the spreading of the erysipelas could be stopped. Large doses were advantageously administered on the first day of treatment at intervals of two hours during the day-time. Salocreol had a marked effect in reducing swollen glands and cases of lymphadenitis after measles, scarlet fever, and diphtheria were improved in a remarkably short time. Similarly good results were obtained in cases of scrofulosis.

Dr. ARNOLD LORAND (Carlsbad) read a paper on the Relations between Diabetes, Acromegaly, and Graves's Disease. These three diseases had many common features. They could be caused by the same agents—infectious diseases, mental emotions, &c. Traumas (nervous shock) could not only cause diabetes but also Graves's disease, and even cases of acromegaly had been reported after accidents. Glycosuria, polyuria, polydipsia, and polyphagia might appear in any of them. In these three diseases there could be found changes in the vascular glands: in Graves's disease in the thyroid gland, in acromegaly in the hypophysis (anterior lobe), and according to the last researches of Opie, Weichselbaum, Hoppe-Seyler, and others in nearly all cases of diabetes there could be found alterations in the vascular islands of Langerhans in the pancreas. These islands constituted a vascular gland of the type of the thyroid or the hypophysis. The pathological alterations in one gland produced also alterations in the other glands. Thus changes in the pancreas produced changes in the thyroid gland, and alterations in the thyroid gland might, *vice versâ*, produce changes in the pancreas. In Graves's disease (hyperthyroidea) glycosuria was very frequent and even true diabetes was not uncommon. According to the researches of Dr. Lorand glycosuria existed in acromegaly when there were symptoms indicating a hyperactivity of the thyroid gland. Glycosuria or diabetes was only present in such conditions where there existed also a hyperactivity of the thyroid gland. This was the case after infectious diseases in which, according to the researches of Roger and Garnier, there existed very frequently a hypersecretion of colloid substance, this being confirmed by Torri. It was equally so after mental emotions, after certain poisons and drugs, which according to Roger and Garnier could also cause a hypersecretion and even later an exhaustion of the gland. The glycosuria of chlorotic persons and the glycosuria which occurred in syphilitic subjects, as a rule observed only in women, depended upon the swelling of the thyroid which had been observed only in women by Engel Reimers. Lactosuria and diabetes, which might appear sometimes during pregnancy, depended upon the hyperactivity of the thyroid in this state. At the end of lactation and pregnancy they might disappear with the exhaustion of the gland. The glycosuria which sometimes appeared in cholelithiasis depended upon the hypersecretion of the thyroid observed by Hürthle in stagnation of the bile. It was a fact that extracts of thyroid gland might produce glycosuria and even diabetes. On the other hand, glycosuria was absent in all states of inactivity of the thyroid gland. It was never present in myxœdema (athyroidea). It was missing in hereditary syphilis, for in these cases there was an inactivity of the thyroid gland (retardation of growth). It was nearly always absent in cancer and tuberculosis, for in these diseases, as Dr. Lorand had established in another communication to the Congress, there existed an inactivity (atrophy) of the thyroid. The disappearance of glycosuria by the treatment with opium and shortly before death depended upon this fact. Diabetes was uncommon in children but so also was hyperthyroidea (Graves's disease). The prognosis of diabetes was better in advanced age (inactivity of the thyroid). The few rare cases of cured diabetes had occurred mostly after infectious diseases—syphilis, influenza (Holsti), scarlet fever (Zinn). As Roger and Garnier had proved there could be brought about in infectious diseases a complete exhaustion of the thyroid after a preceding hypersecretion. Dr. Lorand came to the conclusion that these three diseases were in very close relation to one another; pathological alterations were found in several vascular glands, in diabetes pancreas and thyroid gland were

affected; hyperactivity of the thyroid gland could bring about diabetes especially when there were simultaneous changes in the pancreas.

Dr. HUERTAS BARRERO and Dr. GUSTAVO PITTALOGA brought forward a report upon the Causation and Prevention of Paludism. They agreed as to the relationship between mosquitoes of the genus anopheles and malaria. The clinical manifestations of malaria were produced by three parasites which must be looked upon as three distinct zoological species which were distinct and not convertible one into another. These three species were: (1) plasmodium (hæmamœba) malariæ which caused quartan fever; (2) plasmodium (hæmamœba) vivax, causing tertian ague; and (3) laverania malariæ (hæmamœba præcox and hæmamœba immaculata) which gave rise to the severe æstivo-autumnal fever with its malignant forms. The relation of relapses and the epidemic season (June to December) had acquired an extraordinary importance of late years, for they seemed to point to the fact that parthenogenesis might play a part in their occurrence. There might, for instance, be a direct reproduction of sexual forms of micro-organisms in the blood of malarial patients, such reproduction occurring after longer and later periods and sometimes even after very long intervals from the apparent cure of the original fever, the macrospore, or female element, preserving the power of reproducing by division in the internal organs of its host, the results of the division giving rise to new generations of sporozoites. But the most important conclusion to be deduced from this theory of parthenogenetic relapse is the possibility of the rapid and multiple infection of innocent anopheles which happen to bite during June and July. These mosquitoes became infected with the sexual forms of the malarial parasite in the blood of old malarial patients and it was only from the parasite in this stage that a new generation of sporozoites could be developed in the mosquito's stomach. The prevention of malaria was considered under the headings of (1) destruction of the larvæ of the mosquito, chiefly by petroleum; (2) the improvement by drainage of malarial soils; (3) mechanical prophylaxis consisting in the protection of houses in a malarial tract by a fine metal meshwork, whilst the individual was protected during twilight and the night by mosquito nets, gloves, and veils; and (4) therapeutic prophylaxis consisted in the methodical care of all patients suffering from malaria whether of old or of recent standing—the prevention, in the strictest sense of the word, of malarial attacks by daily doses of quinine, such doses being given to everyone who was exposed to infection during the epidemic season.

## SURGERY.

Dr. TRUMAN W. BROPHY (Chicago, Ill.) read a paper on the Surgical Treatment of Congenital Clefts of the Palate in Infants. He said that he was well aware that many eminent surgeons did not favour operations in early infancy for the cure of cleft palate and that few, comparatively, were familiar with the methods that he had devised and practised, but it was gratifying to realise that many who formerly questioned his method were now most enthusiastic advocates of it. The question of early operations had with him (Dr. Brophy) passed the experimental stage; an experience extending over a period of 20 years, with a careful examination of patients upon whom he had operated, was satisfactory evidence that the most desirable time in life to operate for congenital cleft of the hard palate was within five months of birth, preferably within three months, and this conclusion was based upon the results of clinical experience. Some of his most satisfactory results were obtained in infants from ten days to three weeks of age. The operation was made by forcing the maxillary bones together, bringing the edges of the fissure in contact and securing union. Among the reasons why he believed that early operations were most desirable were: 1. Surgical shock was less because the nervous system of a young child was not well developed and it was not therefore capable of receiving the same impressions that it would later in life; besides, young children usually reacted better. Hæmorrhage was very slight; moreover, all mental impressions were eliminated, it being well known that alarm and dread were amongst the most powerful factors in producing shock. The operation should be made upon the palate before that upon the lip. It was a great mistake to commence at the oral opening and partially to close the only aperture through which a subsequent palate operation must be made. The surgeon needed all the space that could be secured, which was none too much in a small child. The lip operation was comparatively simple and trivial and it could be performed at any time, but the palate operation was made much more difficult if prior to that the lip had been closed. Should the intermaxillary bones protrude they must not be removed but should be carried back into their normal position. 2. Before the bones were fully calcified they might be bent or moved without fracture. Bone at birth was about one-half organic matter, hence the injury was really less in closing a cleft than it would be if the calcification were more complete. 3. If the muscles were very early brought into action they developed instead of atrophied and hence a good velum was secured with plenty of tissue, whereas if the operation was undertaken later in life, after the parts were shrunken through non-use, they could rarely be made to subserve the same service that organs which developed through natural employment could be made to do. It was well known that muscular tissue was more perfectly developed through action; in instances of cleft palate none of the muscles of the velum could be normally employed when the parts were not united and hence they remained in an immature condition through life. By operating at a very early age they were at once brought into use and their development was proportioned to that of other tissues. When the palatal processes of the maxillæ were united the development of the bones of the alveolar processes of the upper jaw assumed a form nearly or quite normal and when the teeth were erupted they would meet the lower ones or nearly so when the mouth was closed. The method described enabled them to restore in early infancy the normal relations of the superior maxilla and consequently the proper relation of the upper to the lower maxillary bone. In patients not having sufficient bony tissue to enable him (Dr. Brophy) to close the cleft by this operation without contracting the arch he found rather to his surprise that as time went on the bones developed and the arch spread until, when the upper teeth were erupted, they nearly, or quite, occupied the normal relation to the lower ones. 4. Following early operations there was much less deformity, for all the tissues, bony as well as soft, developed naturally and according to accepted types. When the operation was postponed for a few years it was very difficult to secure such results. 5. When the operation was made in early infancy the tissues united, the nasal accent did not develop, and speech was normal when the time came for learning to articulate. If the operation was not made until faulty habits of speech were acquired it was with difficulty that they could be overcome, even though the muscular parts were made sufficient. The method of procedure in operating for the closure of congenital cleft palate in a young child would, he added, be fully described and illustrated in the printed Transactions of the Surgical Section.

Mr. WILLIAM THOMAS (delegate of the British Orthopædic Society) made a communication on the Treatment of Hallux Valgus and Hammer-toe. He said that for some time past there had been a movement in England in favour of allowing the human foot to develop its normal shape. Children were allowed to go barefooted or to wear sandals and adults who had arrived at years of discretion preferred comfort in walking to the fashionable shapes of foot-covering. Comfort in walking largely depended upon the perfectly normal condition of the foot, every part of which ought to perform its allotted function. The deformities to which he had to call attention were due almost always to interference with the special function of each toe by ill fitting boots. His paper did not discuss the question of ill-fitting boots but it was intended to describe the methods of correcting the deformities produced by them. The most important of these were hallux valgus and hallux flexus. These two deformities had mutual relations and most frequently the two were present in the same foot. In elderly adults it was not desirable to interfere by means of operative surgery to correct such deformities unless they were producing pain or other inconvenience. It was only necessary for the patient to wear the most comfortable boots he could obtain and to treat any gouty condition which might be, and frequently was, present by suitable medical remedies. When operative interference was required for hallux valgus the best proceeding was to take a wedge of bone from the metatarsal bone of the hallux. An elliptical piece of skin was removed which must be made to include the bunion usually present in these cases and then a wedge was without difficulty removed from just above the articulation of the metatarsal

with the phalanx. When the cut surfaces of the bone were applied to one another the inner margin of the foot should be in the same line with that of the toe; all bleeding being arrested the skin margins were brought together and the foot was fixed in an immobile apparatus. It usually healed completely before the apparatus need be removed. Hammer-toe or flexus digitus pedis was a painful affection and so unsuccessful had treatment been that some surgeons preferred amputation to any less severe method. Although Mr. Thomas had amputated in many cases further experience had convinced him that it was very rarely necessary. The second digit was most frequently affected where there was only one deformed hammer-toe. Next in frequency came the fourth but sometimes the whole of the toes were bent and so severely that the patient walked on the nails. In such cases no one would dream of amputating all the toes and treatment by other means was usually successful. If then they could treat multiple hammer-toe without operation they certainly ought not to require such a severe measure for one. Hammer-toe, when confined to the second digit, was nearly always associated with hallux valgus and many ingenious appliances had been devised for the correction of both. Mr. Thomas explained a simple appliance for the combined treatment of hallux valgus and hammer-toe which had proved of great value in his hands not only in these conditions but also in correcting deformities of the toes generally. He called it the "tomato splint." It was constructed of dentist vulcanite, aluminium, wood, brass, celluloid, or any other non-irritating material, in sizes which readily adapted themselves to the individual foot. Formed of one of the above materials it served as a splint, fitting to the under surface of the toes and affording a groove in which each toe lay in the normal position. The posterior border was concave and rested against the heads of the metatarsal bones. The upper surface had three grooves, one for each of the three middle toes, and two half grooves for the great and little toes. Between the grooves were raised septa, the one between the great toe and the next being higher than the others, and the septa were pierced so as to allow the strapping, tape, or elastic by which the splint was fixed to the toes to pass through. In using the splint it was only necessary to apply it to the under surface of the toes and to fix it not too tightly with strapping, an elastic ring, or piece of narrow bandage. It might be worn at night inside a stocking, in a slipper or loose shoe during the day, or even in a boot if the boot had room enough to contain it with comfort to the foot. With this splint much might be done to correct deformities of the toes—no severe or painful measures were required; properly applied and regularly worn it gradually brought some of the most distorted toes to the normal condition.

Dr. J. M. BARTRINA read a paper on the Alterations in the Shape of the Urethra in Hypertrophy of the Prostate and described a new catheter for prostatic cases. He pointed out that in hypertrophy of the prostate the urethra was not strictured but its shape was altered. The prostatic urethra was enlarged and in some cases to such an extent as to be mistaken for the cavity of the bladder, but this was very exceptional. It was, however, not at all rare to find a prostatic urethra measuring several centimetres in its antero-posterior diameter. This alteration in the shape of the urethra depended on the hypertrophy of the prostate. If the middle lobe was enlarged the urethra became bent and if the lateral lobes were hypertrophied the urethra was flattened, but this flattening was always present, for the hypertrophy was never limited to the middle lobe. This opinion was also maintained by Albarran and Motz. Sometimes the lateral lobes were unequally hypertrophied and then the lumen of the urethra might have various forms and in section it might resemble a cross or an italic *f*. From these facts it was easy to interpret the cause of the difficulty of catheterism in cases of hypertrophied prostate and this cause was not the bent form of the urethra, for if it were so and the catheter were to follow the upper wall of the canal it should infallibly enter the bladder. The real cause was the flattening of the urethra and therefore the catheter for a case of hypertrophied prostate must be suited to a flattened urethra. Dr. Bartrina had had made a catheter flattened from side to side with a sharp upward turn near its apex. In practise the catheter had been a great success in prostatic cases, passing easily in cases where the greatest difficulty had been experienced with ordinary catheters, and a urethra which had only allowed the passage of a No. 14 or 16 (French) catheter would admit readily a No. 23 or 25 flattened catheter.

Professor CESARE GHILLINI (Bologna) read a paper on the Treatment of Club-foot. He confined himself to congenital equino-varus, the commonest and the most interesting form. He was inclined to attribute this deformity to intra-uterine pressure acting on the fœtus. Club-foot was generally due to the soft parts, for the bones were only slightly deformed. Professor Ghillini then reviewed the different operative methods of treatment and expressed the opinion that club-foot was always curable whatever the degree of deformity or the age of the patient. He described his own practice. In cases seen shortly after birth manipulation was employed; later forcible manual correction; and when this failed he performed about the end of the first year of life Phelps's operation (tenotomy of the tendo Achillis and division of all the soft parts opposite the medio-tarsal articulation) and, if necessary, he opened this articulation. The orthopædic surgeon had two indications: firstly, to remove the obstacles to correction and as these were chiefly the soft parts they must be divided; and, secondly, to maintain the correction by the application of a plaster-of-Paris splint and to keep it on sufficiently long. In one case Professor Ghillini had kept a plaster-of-Paris splint on for seven months. If necessary the splint could have an aperture opposite the wound to allow of the application of dressings. The results had always been satisfactory both as to shape and to function. He was inclined to avoid all operations on the bones, for talipes equino-varus was "an affection of the muscles rather than of the bones."

Dr. R. HARVEY REED (Rock Springs, Wyoming, U.S.A.) read a paper on a New and Practical Method of Anchoring the Kidney. Dr. Reed made a longitudinal anterior incision immediately over the middle of the normal position of the kidney. The incision was two and a half inches long, or more if necessary, and was carried through the substance of the abdominal wall and entered the peritoneal cavity. The intestines were held aside, the small bowel being drawn to the opposite side and the colon outwards, so as to enable the operator to get at the kidney which was then brought to its normal position. Two straight needles, seven inches long, were then taken and the ends of a silkworm-gut ligature were passed through the eyes of these needles. One needle was then passed through the posterior peritoneum and the kidney and then immediately above the twelfth rib through the muscles of the back and skin. The second needle was inserted one inch from its fellow, but on the same level, and passed through the same structures. The needles having been brought out at the back were unthreaded and the suture was then tied over a piece of gauze. Care was required to see that no intestine was included within the loop of suture in the abdomen and it was also important that the suture was not tied too tightly. The abdominal wound was then closed. In about 14 days the suture was removed and in another fortnight the patient might go about. The operation was very simple and easy to perform. Permanent adhesions formed which fixed the kidney in its position. Dr. Reed had had 30 cases in which he had performed this operation and 29 of them were successful, and no deaths occurred. In the unsuccessful case the kidney became moveable some six months later and needed a further operation.

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## GYNÆCOLOGY.

Dr. A. LAPTHORN SMITH (Montreal) read a paper on Cancer of the Uterus. He held that the present results of treatment were extremely unsatisfactory and if any better results were ever to be obtained it must be by general practitioners recognising the condition at an early stage. The earliest symptom was irregular hæmorrhage from the uterus, especially after coitus, and especially in women who had passed the menopause. Every patient with such hæmorrhages should be examined and if the cervix was found torn it should be sutured as soon as possible, for Dr. Lapthorn Smith held that if every torn cervix were sutured within a year of the accident cancer of the cervix would not occur and that cancer of the cervix was increasing in the countries where this precaution was not taken. In his own practice every tear of the cervix was sutured as early as possible and cancer was very rare. As soon as the disease was suspected the uterus should be removed. He held that cancer was not in the least hereditary but very contagious and that when this belief was general it might be possible to do away completely with cancer.

Dr. J. L. FAURE (Paris) read a paper on the Technique of Abdominal Hysterectomy. He maintained that the methods

and details of abdominal hysterectomy must vary with the individual case and that if the surgeon did not adapt his method to the special conditions present unfortunate results might follow. Apart from cases of malignant disease, partial hysterectomy was always to be preferred to total removal of the uterus, even if it were only for the greater ease in arresting hæmorrhage. In malignant disease the whole uterus and the upper part of the vagina should be removed, if in any way possible. The vagina should not be divided until the uterus had been completely isolated from surrounding parts and especially from the ureters and this dissection could only be carried out with safety by dissecting slowly on each side from the fundus of the uterus downwards. In all other cases partial hysterectomy was sufficient. The cases divided themselves into two classes: cases of fibromata of the uterus and cases of affections of the appendages, for when these diseases and tumours of the uterine appendages were bilateral hysterectomy was often necessary. Dr. Faure laid it down as an important principle in partial hysterectomy that whenever possible it was better to separate the uterus and its annexes from their attachments from below upwards. This was very easy in the case of fibromata. If the fibroma was moveable and could be turned forwards a cut with scissors posteriorly at the level of the isthmus separated the cervix from the body and the uterus was only held by the broad ligaments. The right hand passing between the cervix and the body picked up the right broad ligament and it was clamped and divided with scissors. The uterus was then turned to the left and the left broad ligament was seized, clamped, and divided, and the uterus was thus removed in a few seconds. This was hysterectomy by "primary section of the cervix." If the fibroma was fixed by being adherent posteriorly primary section of the cervix could be performed from before backwards, and thus an operation was rendered easy which by any other method would be very difficult. If the uterus could not be drawn up and the cervix was therefore inaccessible Kelly's method was the best—that was, passing from above downwards through one broad ligament and then dividing the cervix. It was, however, especially in cases of affections of the annexes in which hysterectomy was justifiable that the method employed must be varied according to the conditions present. Where possible primary division of the cervix was the best, but if adhesions were present on one side Kelly's method should be used. If, however, extensive adhesions on both sides rendered this impossible the method Dr. Faure advocated was to make a mesial incision through the uterus from the fundus to the cervix; then each half of the cervix was divided and the broad ligaments were attacked from below upwards. These methods might sometimes be usefully combined. The chief aim should be to reach as easily as possible the isthmus of the cervix and to attack the broad ligaments from below upwards.

## NEUROLOGY.

Dr. J. F. SUTHERLAND, Deputy Commissioner in Lunacy for Scotland, read a paper on the Geographical Distribution of Lunacy in Scotland and Ireland (*urbs et rus*). The significance of migration and mortality under five years of age was clearly brought out. The paper was well received and the maps and diagrams illustrating it excited favourable comment. The view was put forward that so many imbeciles under five years of age being swept off by neglect, injudicious dietary, and zymotic disease in urban and city areas accounted for the vastly different ratios of lunacy prevailing in rural and urban areas. The ratio was 30 per 10,000 in the urban districts and it was as high as 90 per 10,000 in rural districts. The reverse was the case with the mortality under five years of age which was thrice as great in urban as in rural areas. The shaded maps exhibited were framed on the census of Great Britain and Ireland taken in the year 1901.

## THERAPEUTICS.

Dr. R. BLONDEL (Paris) read a paper upon the Physiological and Therapeutical Properties of Milk Serum, of which the following is an abstract. The serum of cow's milk obtained in a state of purity by rapid coagulation at a temperature of 38° C. by means of an acid and then neutralised with soda and filtered through a porcelain filter showed certain very remarkable properties which appeared hitherto to have been unnoticed, for nothing had been used for the same purposes except skimmed milk sterilised at a temperature of 100° C., the result of which was that a liquid was obtained differing but little from a simple solution of milk sugar and the salts found in milk. Serum, however, prepared in the above manner contained in addition a definite proportion of albumin and of organic ferments such as pepsin, trypsin, lipase, and glycolytic ferment and oxydases. The true oxydases, however, which had the power of striking a blue colour with tincture of guaiacum were but scanty and the oxydases most marked were the indirect oxydases which did not colour guaiacum blue except in the presence of a watery solution of oxygen. If the serum thus obtained was placed in flasks sealed up in an atmosphere of carbonic acid the action of the ferments was stopped and the fluid remained unchanged. Injection into a healthy man hypodermically in doses of 20 cubic centimetres per diem was carried out for one month without any inconvenience. The weight, however, diminished somewhat and the urine underwent important modifications, that was to say, the excretion of the urea, of uric acid, and of phosphates was considerably augmented. When administered to a gouty patient the day after an acute attack of gout within 24 hours the patient had another attack with a profuse discharge of uric acid. The effect of the injections upon the blood-pressure was to lower it markedly. Dr. Blondel then gave details of various cases of infectious fevers in which the serum had been administered at the Pitié and Charité hospitals. In these cases the injections lowered the temperature. Dr. Blondel considered that the lowering of the temperature was due to two physiological actions, that of the oxidising ferments which destroyed the toxins and that of the albumin which was injected which brought about a marked leucocytosis. Dr. Blondel had never found any disagreeable results from the injection. It was not painful but sometimes three or four hours after the injection the limb into which the serum had been injected felt cold. Sometimes, too, a light cloud of albumin was found in the urine. The simultaneous administration of 5 or 10 centigrammes of sulphate of quinine had a marked effect in increasing the power of the injection to lower the temperature. This, Dr. Blondel thought, was remarkable, for quinine alone had no effect in cases of puerperal septicæmia. To sum up, milk serum employed in this manner lowered the blood pressure very markedly and also lowered the temperature. Dr. Blondel had obtained encouraging results in various infectious diseases and more especially in cases of puerperal septicæmia. Altogether he had tried the treatment in 30 cases, including surgical cases and cases of puerperal septicæmia.

Dr. E. ALBERT-WEIL (Paris) read a paper on the Methods of applying Currents of High Frequency and their Value. He commenced by referring to the methods of application of high-frequency currents. These were direct application, brush discharge, spark discharge, and the application by means of various electrodes attached to the upper spiral of a monopolar resonator. He also mentioned brush discharge and application of the current by electrodes attached to bipolar resonators. The bipolar brush discharges he considered inefficacious and illogical in cases of pulmonary tuberculosis, for they increased the activity of tissue change. He had found them useful, however, in cases of neuralgia, rheumatism, diabetes without azoturia, and neurasthenia with loss of arterial tone.

A paper on a New Method for the Pleasant Administration of Nauseous Drugs was communicated by Mr. OTTO MARESCH (Trelleborg, Sweden). Mr. Maresch pointed out that although most branches of medicine and surgery had made enormous advances within the last 50 years yet the art of pharmacy had not advanced *pari passu*. The method of giving nauseous drugs except when they were given in capsules, which children generally found difficulty in taking, was still very much as it was in the middle of the last century. He had made various experiments and had found that many ill-tasting drugs could easily be made into an emulsion with cocoa and sugar and that their taste thereby was completely hidden. He mentioned especially bitter drugs, such as quinine, and nauseous drugs such as castor oil. His emulsion was made by a process involving quick cooling.

Dr. DECREF (Madrid) read a paper entitled "A Contribution to the Study of the Treatment of Ataxia by the Re-educative Method." He pointed out that there were three stages in the history of this method. The first corresponded to a work published in 1877 by Dr. Godard of Paris on Chervin's treatment of stammering. Dr. Moutard Martin defined this trouble as an intermittent spasmodic

condition of the phonetic apparatus and Dr. Godard accepted this definition as it explained the Chervin treatment which consisted in (1) regulating the respiration and prolonging expiration so as to allow the pronunciation of a word without interruption; (2) in educating the phonetic apparatus by a special course of gymnastics in order to overcome the muscular rigidity so as to allow the tongue, the jaws, and the lips to assume the necessary positions; and (3) in strengthening these actions by attention and reflection. This was the basis of all the re-educative methods. The second step corresponded to a paper Dr. Decref published in 1887 in the *Medical Review* of Madrid. The third step consisted in Dr. Fränkel's communication to the Academy of Bremen when he presented three cases of locomotor ataxia in which the incoördination had disappeared as the result of a series of exercises. Since this date others had used these methods. Dr. Decref himself had employed re-educative exercises in 25 cases of chorea and with great success. He described one case where the patient was eight years old and suffered from a very severe chorea. The movements were very violent and the child was unable to speak a word. He was much wasted, the disease had lasted six weeks, and no treatment appeared to have made any improvement. The child was treated by the re-educative method on 30 occasions and the chorea completely disappeared, but the wasting was as marked as ever. Later, while at a watering-place in the north of Spain pieces of a tapeworm were expelled and by suitable treatment the whole worm was removed. The average time required for the complete treatment of cases of chorea had been a month. In slight cases a fortnight had sufficed. The following was the procedure adopted: (1) a tepid spinal douche lasting for half a minute; later, when the spasms had diminished, this might be replaced by the cold douche or the hot douche at a temperature of from 43° to 45°C. (113° F.) if there were any rheumatic complications; (2) immediately after the douche the patient was lightly massaged all over, effleurage being employed; (3) the patient, dressed suitably, then performed the various exercises, such as (*a*) flexion, extension, and abduction, first of one foot and then of both feet together; (*b*) flexion of the knees and hips, abduction and adduction of the legs, and so on; and (*c*) similar movements of the arms. All these exercises had to be guided by the operator's hands, but he should not force the limbs in the direction in which they had to go. The exercises should be performed rhythmically and to the order of the operator who counted aloud at each movement. (*d*) When the patient improved all these exercises had to be performed in the standing position. These exercises were repeated every day and the facility of their performance was soon seen to increase.

### DERMATOLOGY AND SYPHILOGRAPHY.

Dr. JAY (Clermont-Ferrand) read a paper on Excision of Syphilitic Chancres. He pointed out that excision of syphilitic chancres was a hopeful method of aborting syphilis. In most of the patients upon whom he had operated careful observation for a long period of time after the operation enabled him to state that neither secondary nor tertiary syphilitic symptoms had appeared. The ulceration had appeared at the normal date after contagion and the syphilitic nature of the lesion appeared evident, both from its clinical features and from information derived from an examination of both parties. The success, therefore, of the treatment was founded upon as firm a basis of argument as it was possible to put forward. Dr. Jay concluded by affirming that it was possible to eradicate syphilis by removing the early focus of the disease and so far as regarded chancres easy of access, such as those on the prepuce, he said that his motto was, "Excise and watch."

### PEDIATRICS.

Dr. A. L. PEYROUX (Paris) read a paper on the work of two charitable undertakings, the "Consultations de Nourrissons" and the "Gouttes de Lait." The first of these was concerned almost exclusively with breast-fed infants and had given excellent results. The second, on the other hand, was concerned almost entirely with artificial feeding and its results had been unsatisfactory, not on account of the sterilised milk itself, but on account of difficulties connected with supervision. The "Gouttes de Lait" by distributing sterilised milk to mothers without at the same time making inquiries as to their home circumstances and their possible ability to suckle their infants had, according to Dr. Peyroux, done what it could to discourage breast-feeding and was therefore undeserving of support.

Dr. ERNEST DEUTSCH (Budapest) also read a paper on the "Gouttes de Lait." He said that women who were insufficiently fed could not suckle their children properly and therefore the relief ought to commence with the distribution of milk and tickets for soup-kitchens. If the infant did not gain in weight artificial feeding ought to be combined with suckling. When the mother had no milk the alternative was to supply pasteurised milk in bottles, each bottle containing the quantity to be used at a time. A medical man ought to be attached to the "Gouttes de Lait" and instruction ought to be given to mothers by the holding of meetings and the distribution of pamphlets.

Dr. ALBERT JOSIAS and Dr. JEAN CH. ROUX (Paris) communicated a paper on the Treatment of Tuberculosis in Children by Meat Juice and Raw Meat. This system was followed in the case of 46 patients who took 150 grammes of meat juice and 100 grammes of raw meat every day. Of these patients 16 suffered from tuberculous peritonitis and meningitis, acute tuberculosis, and Pott's disease. The remaining 30 were the subjects of pulmonary phthisis and of these 13 either recovered or were greatly improved and 14 died.

Dr. F. J. POYNTON (London) read a paper on a Microbic Agent considered as the Connecting Link between Chorea, Endocarditis, and Articular Rheumatism in Childhood. He said that investigations chiefly on a statistical basis made by H. Roger in 1866 and by many subsequent writers had proved the close association of chorea and rheumatism. He and Dr. Alexander Paine had produced chorea experimentally in a rabbit by inoculating it with the diplococcus of rheumatic fever and they had found the diplococcus in the rabbit's pia mater and the endothelium of the cortical capillary vessels. They had also found micrococci in the mitral valve, the cerebral cortex, and the pia mater in a fatal case of human chorea.

Dr. PATRICIO BOROBIO DIAZ (Saragossa) described 15 cases in which Surgical Anæsthesia had been produced in children by intra-spinal injections of a centigramme (one-seventh of a grain) of cocaine. Two of the operations were for urethral fistula; the others were performed on the lower extremity and included a Pirogoff's amputation for tuberculosis of the tarsus.

Dr JOSE VIEDEN PORTELLO (Valencia) read a paper on the Treatment of Purulent Ophthalmia in the Newly-born. He recommended the local application of solutions of protargol of the strength of from 2 to 5 per cent. twice a day. In the intervals, with the aid of his new elevating irrigator, the eyes were to be bathed two or three times in the 24 hours with warm boric acid lotion which might contain a small quantity of solution of formalin having a strength of 1 in 2000. A little vaseline containing 2 per cent. of iodoform precipitated by ether should also be applied every four hours or more frequently. By this means a cure might be effected in from eight to 15 days. Nitrate of silver and solutions of corrosive sublimate should on no account be employed while the inflammation was active.

Dr. LUIS FATAS Y MONTES (Madrid) read a paper on Child Mortality in Madrid. He said that during the last five years the average annual birth-rate of Spain was 34·50 per 1000, while that of Madrid was 32·69 per 1000. During the same period the average annual death-rate of Spain was 28·79 per 1000, while that of Madrid was 31·43 per 1000, a proportion which compared unfavourably with the death-rate of all the other European capitals. The child mortality per annum was very high—457·16 per 1000; as everywhere else, the mortality was in inverse ratio to the age, being 49·40 per cent. under one year, 38·52 per cent. from one to five years, 8·72 per cent. from five to 10 years, and 3·35 per cent. from 10 to 15 years. Of 10 children born about six reached the fifth year. One year's statistics showed that the death-rate of illegitimate children was lower than that of legitimate children, an anomaly which might be explained by the fact that many of the former were put out to nurse and for that purpose were sent away from the city as soon as they were born. There was no discoverable relation between infant mortality and density of population. Of the deaths 25·68 per cent. were due to respiratory diseases, 20·21 per cent. to nervous diseases, and 26·70 per cent. to infectious diseases, including tuberculosis and syphilis. In Madrid the proportion of still-births was higher among illegitimate children than among

legitimate; in Barcelona 25 per cent. of the illegitimate children were stillborn. Dr. Fatas y Montes made a variety of recommendations for the improvement of the existing state of things, including prohibition of marriages of persons suffering from transmissible diseases, medical inspection of schools, the providing of additional hospitals for children, and the formation of public playgrounds.

Dr. JULES COMBY (Paris) read a paper on the Serum Treatment of Diphtheria, with special reference to the use of Roux's serum, which, he said, contained 1000 antitoxin units in five cubic centimetres and had been found to remain active for a long time—even for 18 months or two years. It ought not, however, to be kept longer than two years. Serum should be injected as soon as possible in all cases known or presumed to be diphtheria, without waiting for the completion of a bacteriological examination. It was better to make 100 unnecessary injections than one that was too late. The quantity injected in ordinary circumstances varied from five cubic centimetres for infants aged only a few weeks or months to 20 cubic centimetres for children above ten years. Before the employment of serum the case mortality in diphtheria was 50 per cent., but it had now been reduced to 12 or 15 per cent. Injected as a prophylactic Roux's serum conferred an immunity lasting three or four weeks. The injections caused exanthematous eruptions on the skin in more than 16 per cent. of the cases.

Dr. FRANCISCO CRIADO Y AGUILAR (Madrid) read a paper on the Pathology and Treatment of Pseudo-hypertrophic Paralysis. He believed that the increase in the volume of the muscles was due to hyperæmia of the spinal cord. The treatment consisted of rest in bed, milk diet, and counter-irritation to the spine; baths and massage were injurious.

Dr. LOPE CARRALERO (Madrid) read a paper on Coryza in Suckling Infants as an Early Sign of Hereditary Syphilis.

### OTOLOGY.

Dr. H. J. L. STRUYSCHEN (Breda) read a paper on Acouometry, the object being the determination of the lower limit of loudness of sound perceptible in a case of deafness. The principle involved was the measurement of the decreasing amplitude of a vibrating tuning fork and the observation of the moment when the sound was no longer audible. The decrease of amplitude being measured in micro-millimetres by Gradenigo's method it became possible to calculate the amplitude (and consequently the loudness of the sound produced) at a given instant.

Professer E. SCHMIEGELOW (Copenhagen) read a paper on the Causes of Deaf-Mutism. Of these the most important was loss of hearing, either total or partial. Total loss of hearing, either congenital or supervening before the age of eight years, brought about deaf-mutism in most cases but not in all. With respect to partial loss of hearing Professor Schmiegelow considered that children who could not hear ordinary conversation at a greater distance than ten inches would become deaf-mutes.

Dr. A. CASTEX (Paris) also read a paper on the causes of Deaf-Mutism, prefacing it by an eulogy of Ponce de Leon, a celebrated instructor of deaf-mutes in Spain in the sixteenth century. Congenital deaf-mutism was most often met with in mountainous countries and had a tendency to affect male children born of consanguineous parents. Heredity showed itself as between grandparents and grandchildren rather than as between parents and children. Syphilis, tuberculosis, rickets, alcoholism in the ancestry, illness of or accidents to the mother during pregnancy, and lesions of the labyrinth, brain, and medulla oblongata were important predisposing causes. Some of the most energetic factors in the production of acquired deaf-mutism were affections of the brain and meninges, measles, scarlet fever, and diphtheria.

Dr. MARCEL LERMOYEZ (Paris) read a paper on the After-treatment of Operations on the Ear, with especial reference to mastoid trephining.

### LEGAL MEDICINE AND TOXICOLOGY.

Dr. FRANCISCO CARBONELL Y SOLES (Barcelona) read a paper on the use of Crystallography in the Identification of Poisonous Alkaloids. Chloride of sodium normally crystallises in cubes, but when crystallised from solutions containing very small quantities of alkaloids it assumed a variety of forms, by observing which he said that the alkaloids in question might be recognised.

Dr. DIO A. VALDIVIESO Y PRIETO read a paper recommending that the Transmission of Venereal Disease should be made a statutory offence, without regard to the sex or social position of the culprit, and that the penalty should be two years' imprisonment together with liability for all medical expenses incurred and for compensation to the injured party. In the event of the culprit being unable to make these payments an additional term of imprisonment should be imposed. Brothel-keepers (*las dueñas*) should be liable to fine and imprisonment in the event of the women in their establishments (*las pupilas*) failing to make the requisite payments.

### OPHTHALMOLOGY.

Dr. JUAN SANTOS FERNANDEZ (Havana) read a paper on Eye Disease in Cuba. The only unusual disease of the eye mentioned by him was cequera, an endemic purulent ophthalmia which sometimes became epidemic and was carried from one person to another by a small fly. It seemed to be produced by the bacillus of Weeks and the diplococcus of Mora. With respect to the effect of tobacco on the eye he was decidedly of opinion that tobacco had been blamed for giving rise to morbid conditions which were really due to alcohol, but he admitted that many medical men in the island did not hold this view. Myopia was rare, especially in negroes, but the majority of the inhabitants of the island were hypermetropic and the use of spectacles was increasing.

Dr. FERNANDEZ also read a paper on the Lacrymal Canal in the Negro, being a record of comparative observations made on 24 dissecting-room subjects, of whom 15 were whites and nine were negroes. He found that in whites the nasal canal was long and somewhat tortuous; it was therefore liable to stricture and other disorders. In the negro, on the other hand, the nasal canal was wide and straight, in consequence of which negroes were less liable than whites to stricture and other complications affecting the lacrymal sac and lacrymal canal.

## BIRMINGHAM.

**(FROM OUR OWN CORRESPONDENT.)**

### *Women's Hospital.*

THE annual meeting of the supporters of this institution has recently been held and the report read thereat shows that the number of new cases seen in the out-patient department was 3379, being an increase of 94 as compared with last year. The total number of new and old cases treated during the year was 18,078, being 904 more than last year. On the other hand, there were 14 less patients admitted to the in-patient department, the total number being 426. The total number of operations was 412; among these were 234 cases involving abdominal section. Of these three patients died, giving a death-rate of 1·28 per cent., as compared with 4·2 per cent. on 213 operations in 1901. From the founding of the hospital to Dec. 31st, 1901, there have been 3376 operations and of these patients 215 died, giving a death-rate of 6·36 per cent. For the five years 1897 to 1901 inclusive there were 882 operations and 41 of these patients died, giving a death-rate of 4·64 per cent. Allusion was made to the subject of the new hospital, for which funds are now being collected. It is intended that there shall be 40 beds and that the building shall be easy of access both to the medical staff and to the convalescent home. About £40,000 will be required for the purchase of the freehold site and for building and equipping the new hospital. Towards this amount a sum of over £26,000 has been given or promised and great efforts are being made to secure the balance.

### *Ear and Throat Hospital.*

The annual meeting of the friends and supporters of this hospital was also held recently. During the year 1192 in-patients were treated, as compared with 1172 in the previous year. The number of out-patients was 8122, being 1120 more than in 1901. Here, also, there is an urgent cry for extension, but the response to the appeal for funds has so far not been very encouraging, only £1300 out of the necessary £8000 having been promised. This hospital has had some considerable losses during the year. Mr. F. Marsh and Dr. F. W. Foxcroft who has been appointed aural surgeon and laryngologist at the General Hospital have both resigned their connexion with the hospital. Moreover, it has lost by death the services of Mr. G. Panton,

F.R.S. Edin., for a number of years its honorary secretary. Mr. Panton, who was almost up to the time of his death secretary in Birmingham to the Scottish Provident Association, had rendered most valuable service to the hospital. His methods and ideals had by no means always been such as to commend themselves to the members of the medical profession, but, on the other hand, it must be admitted that he found the hospital a small and comparatively obscure charity and left it in a much more prominent position.

*The General Hospital.*

The growth in the efficiency of provincial hospitals and, it may also be added, in the expensiveness of their management, is well exemplified by a comparison between the resident staff of this institution 20 years ago and at the present day, it being remembered that the number of beds has been but little increased during that period. 20 years ago there were only three qualified residents attached to the institution—resident medical and surgical officers and pathologist. The last-named official was responsible for the administration of all the anæsthetics—a somewhat singular combination of duties—and he had also the laborious task of compiling the annual tables of statistics for the hospital reports. At the present day there are a resident surgical officer with four house surgeons under him, a resident medical officer with three house physicians, a pathologist—who no longer gives anæsthetics, for two special officers are appointed for that purpose—and now a fresh resident post has been created in the shape of a house surgeon in charge of the special departments of the hospital, obstetric, ophthalmic, and oral. This hospital has recently lost one of the oldest members of its committee in the person of Mr. A. A. Ellis of King's Norton. Mr. Ellis had never taken much part in the public work of the city but had served the General Hospital with untiring faithfulness for many years and will be much missed by all connected with it.

*The Medical Officership of Health.*

The council has now decided upon the terms of this appointment which I observe is advertised in your advertisement columns. At the meeting at which the report of the health committee on the subject was discussed some truly original remarks were forthcoming from the wise men of the city. According to the daily paper one councillor's speech appears to have consisted of the remark—"Give him a thousand a year—Lord 'a mercy!" Another suggested that the work of the medical officer of health in the city was mainly of a routine character, which shows a fine ignorance of the actual state of affairs, whilst another sapient worthy thought the salary so enormous that there was a risk of tempting some man whose reputation had been made and who would be content to come to Birmingham to rest upon his laurels. Reason, however, prevailed, and the recommendation that £1000 per annum should be offered was approved by an overwhelming majority. It is probable that the council will have no lack of candidates from amongst whom to make a choice. It is to be hoped that its selection may be a wise one. A strong man, possessed of commonsense and tact, is badly needed, and if possible he should be a man whose selection will commend itself to the general practitioners of the district, for should this be so the possibilities of friction will be much decreased.

*The University.*

The report of the visitor and inspector of the General Medical Council on the final examination of the University for medical and surgical degrees held last June has recently been made public and by an excellent new rule of the Council copies have been sent to all the examiners in the subjects of the final. The report is one with which the University has every reason to be well satisfied. It speaks of the examination as "a practical examination of a high standard, well planned and well carried out." The practical examination in pathology and the practical examination in forensic medicine are very highly spoken of. With respect to the latter the report states that, "Judging from the description of the practical examination which we have given from the information furnished to us and from the written work of the six candidates whose papers we have read, we should say that this examination, as far as our experience goes, is unique of its kind and that it deserves high commendation." A few suggestions for the future were made by the visitor and inspector and according to the report of the Examination Committee of the General Medical Council on the reply of the University, "the authorities of the University have wisely recognised the value of the friendly criticism of the inspector and visitor, and have, in the view of this committee, met them sensibly and well." It must be a source of great satisfaction to all friends of this young institution to find it come out so well from its first inspection. Since I last wrote two reading- and writing-rooms for the use of the medical students only have been opened in the University buildings. These rooms, which have been very comfortably furnished, will supply a want which has long been felt and will, it is hoped and believed, greatly add to the comfort of the medical students who have in the past had no separate accommodation of their own.

May 12th.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

*Opening of the Johnston Laboratories at University College, Liverpool.*

THE Right Hon. Walter Long, M.P., the President of the Local Government Board, formally opened on May 9th the new laboratories, the gift of Mr. William Johnston. A description of the laboratories appeared in THE LANCET of May 9th, p. 1338. The opening ceremony took place in the Arts theatre of University College in the presence of a distinguished company, including prominent citizens of Liverpool, many foreign guests, and the professors and lecturers of the College in academic costume. Mr. E. K. Muspratt, in the absence of the Earl of Derby, K.G., presided and amongst those on the platform, besides Mr. Walter Long, were the Lord Mayor, Mr. William Johnston (the donor of the laboratories), Sir Alfred L. Jones, K.C.M.G., Principal Dale, Sir Michael Foster, K.C.B., M.P., Professor G. Sims Woodhead, Professor F. Gotch, Professor T. Clifford Allbutt, Dr. Ravenal (Philadelphia), Professor Weigert (Frankfort), Professor Blanchard (Paris), Professor Perroncito (Italy), Professor Nocard (Paris), Professor Eulenburg (Berlin), Professor Uhlworm, Professor von Hausemann, and Dr. Sleegmann (Holland). Prior to the opening speech of Mr. Long, Principal Dale read a letter from Lord Derby, the President of the College, in which he expressed great regret at his unavoidable absence from the opening ceremony, as it would have given him great pleasure to welcome the many distinguished foreign visitors. Mr. Muspratt (the chairman) said that he had received a number of telegrams from various parts of Germany expressing good wishes for the success of the work of the new laboratories. That gathering had assembled to witness the opening of the laboratories in which a large amount of original research would be carried on and which they owed to the munificence of Mr. William Johnston who had for many years taken a deep interest in the progress of medical science and had seen the need of devoting a large amount of his means to the promotion of original research in medicine. It was with that view that Mr. Johnston approached Professor R. W. Boyce who saw the means by which Mr. Johnston could promote the object which he had nearest at heart. They had also to welcome Mr. Long, a representative of His Majesty's Government and the head of the Local Government Department. He hoped Mr. Long's presence there was an indication of the increased interest which the Government took in the progress of science. Nearly all the Government departments for the last 50 years had been obliged to seek the assistance of scientific men and though they had availed themselves of the services of these men they had thought little of the necessity of training up with the increase of civilisation a large number of men of high scientific attainments. The training of such men could not be conducted in classes of science and art alone but in a large institution such as University College, which he trusted in the near future would become a university. In the laboratories which Mr. Long was about to open that afternoon was a department of bio-chemistry. For a number of years Germany had had a large number of professors of that one science. Chemistry really lay at the root of many other sciences. It was more than 50 years since Baron Liebig first showed the world that chemistry could be of great assistance to physiology and afterwards to pathology. Bio-chemistry had developed into a special science. It was known for a long time in Germany as physiological chemistry but it was now extended and was called bio-chemistry. It had practically to do with the chemistry

of life and of living matter. The department in the new laboratories of experimental medicine was a new development of medical research and the first object of these experiments would be undertaken for the study of cancer. He hoped Mr. Long would carry away with him a feeling that if they were to have scientific men in the future to work in the Government departments it was necessary that they should do their best to promote original scientific research. Mr. William Johnston, who was very heartily received, said that it gave him great pleasure to tender for the acceptance of the council the laboratories which Mr. Long had so kindly consented to open. It had afforded him much gratification to be associated with the laboratories, because from his early days he had taken the deepest interest in medicine and in medical research. He trusted that the laboratories would prove successful, as he was sure they would be, considering the eminent men in whose charge they were placed, and he further hoped that they would contribute to placing the medical school of their new university in the foremost rank of scientific schools. He asked Mr. Long to declare the laboratories open. Mr. Walter Long, who was very warmly received, said that there could not be any doubt that there were a great need and a very widespread demand for laboratories such as the one presented by Mr. Johnston. He did not believe that there was any need to impress upon his colleagues in the Government the importance of such work as would be performed in those laboratories. It was appreciated by them as it was appreciated all the world over. Members of governments were not altogether in easy positions. He did not refer to their political party life or to their conflicts in the House of Commons but to the inner side of their life. As President of the Local Government Board what could be pleasanter or easier for him than to meet the chairman in his suggestion more than half way and to assure him that the resources of the State should be exhausted in days to come in order to do their duty to science, and especially to medical science? Members of the Government had to act not separately but conjointly and so long as he had the honour to occupy his present position he would do his best to secure on behalf of the Government of the day the utmost assistance which could be given to the advancement of science in all parts of the country. How close, it seemed to him, was the connexion between the development of science—and especially that form of it known as preventive medicine—and commerce for which this great country was so justly famous, and in the city of Liverpool there was especial and striking evidence of this union. The School of Tropical Medicine in Liverpool had already been productive of conferences of the greatest possible value, not only between members of the school and people engaged in commerce, but conferences which had drawn to them and included the presence of distinguished men from our colonies and from foreign countries. That union was not only striking in itself but had been productive of great and valuable results. Then he came to a question which closely touched the department with which he was concerned. It had always been the object of that department, while imposing regulations which had for their object the prevention of the spread of disease, at the same time to do as little as possible to injure the trade of this country and the trade of the world. The work that would be done in these laboratories would be of the greatest advantage and of the most inestimable benefit to the country as a whole. He admired the munificence of the citizens of Liverpool. The permanent record of their work was in the splendid buildings which existed for the purpose of research and the schools and scholarships which they had founded for this most beneficent work. Not only had they contributed £200,000 to the university fund but they had a notable instance in the fact that the city was willing to be rated for the purpose of maintaining university training in this direction. One felt truly for those engaged in this great work. Let them try to realise what were the sufferings of the men in the time of Wellington and to contrast those with the possibilities for the relief of pain in the war just concluded. The work to be done in the new laboratories would tend towards the relief of pain and of human suffering, and they owed much to Mr. Johnston and to the munificence of other benefactors whose large-heartedness had enabled such a work to be successfully carried on. All knew what terrible suffering resulted from cancer. There had been startling discoveries made in connexion with the more common diseases, such as diphtheria and typhoid fever. The investigation of cancer was one of the great works which the munificence of Mr. Johnston would enable them to carry on in those laboratories. In declaring the laboratories open Mr. Long commended the donor's munificence in saying that: "Much has been done"; "There is still a wide field"; "Yet much remains to conquer still"; and "Peace hath her victories no less renowned than war." That might rightly be the motto for large-hearted citizens like Mr. Johnston. Might his beneficence be followed by great and triumphant victories in the field of human life. Principal Dale moved:—

That this meeting of members and friends of University College expresses its sincere gratitude to Mr. William Johnston for the munificence which has enriched the University of Liverpool for the work of medical research, and to Mr. Walter Long for his kindness in taking part in the inaugural ceremony.

Principal Dale said that the laboratories were but a part of Mr. Johnston's gift to the University. He had founded and endowed the chair of bio-chemistry to which Professor Moore had been appointed. Mr. Johnston had also founded and endowed three fellowships for the purpose of medical research. The motion was seconded by Professor Gotch. The Lord Mayor, as representing the citizens, and Sir Alfred Jones, as representing commerce, cordially supported the motion, which was carried with acclamation. The assembly afterwards visited the new laboratories.

### *Banquet at the Adelphi Hotel: Symposium at the Medical Society.*

In the evening Mr. William Johnston entertained a distinguished company to dinner at the Adelphi Hotel. Covers were laid for 140 gentlemen. Mr. Johnston presided, having on his right Mr. Walter Long, M.P., and on his left the Lord Mayor of Liverpool. Other distinguished guests included Sir Michael Foster, M.P., Professor Blanchard, Professor Perroncito, Professor Armstrong, Professor Gotch, Professor Weigert, Professor Ravenal, Professor T. Clifford Allbutt, Professor Schäfer, Professor Hansemann, Professor Bottagi, Professor S. Delépine, Professor Nocard, Professor Boyce, Professor R. Ross, C.B., Professor Zimmermann, Professor Eulenburg, Sir Alfred Jones, Sir John Brunner, Bart., M.P., Sir William M. Banks, and Dr. A. S. F. Grünbaum. The chairman submitted the toasts of the King and Queen, which were duly honoured. The Lord Mayor proposed the toast of "The President of the Local Government Board" in an able speech. Mr. Walter Long, in reply, said he was rejoiced to see that on the present occasion they had the presence not only of many of their own leading scientists but some of the most distinguished *savants* in Europe. Sir Alfred Jones submitted the toast of "Commerce and Scientific Research," which was replied to by Sir Michael Foster in a witty speech. He said that in modern science Liverpool took a leading place. He referred to the close and cordial relationship which existed between science and commerce and expressed confidence that in this relation, so far as science was concerned, she would never seek to divorce herself from commerce. Professor Armstrong also responded to the toast. The toast of "Our Foreign Guests," proposed by Sir John Brunner, Bart., was responded to by Professor Ravenal, Professor Blanchard, Professor Weigert, and Professor Perroncito.—Mr. Rushton Parker, the President of the Liverpool Medical Institution, received 140 members and foreign guests at a symposium at the institution in honour of the opening of the laboratories on Monday night.

### *The New Liverpool University.*

The feeling was expressed at the meeting of the court of governors of University College held on May 2nd that there was some ground for hope that the charter constituting the new university might possibly be issued at the beginning of July. If that took place the next step would be to pass through Parliament an Act transferring the property of University College to the University of Liverpool. A Bill for that purpose was read a second time in the House of Lords a week ago, but it could not further proceed until the charter was granted. Assuming that all goes well the court of governors anticipated that the University of Liverpool would be able to inaugurate its career on Oct. 1st next.

May 12th.

THE CANCER RESEARCH FUND.—The sum of £1000 has been received from Mr. Henry Louis Florence by the honorary treasurer of the Cancer Research Fund under the direction of the Royal Colleges of Physicians of London and Surgeons of England.

# WALES AND WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

### *Proposed Incorporation of Merthyr Tydvil.*

IT is remarkable that among the 22 urban districts of Glamorganshire, where there is an aggregate population of three-quarters of a million, there are only two county boroughs (Cardiff and Swansea) and only three municipal boroughs (Aberavon, Cowbridge, and Neath), these three towns having a combined population of only 25,000 persons. It is the more remarkable because there are two districts (Rhondda and Merthyr) each with a population sufficiently large to qualify them as county boroughs and there are three towns (Aberdare, Mountain Ash, and Pontypridd) the population in each of which is either over 40,000 or approaching that number. As a first step towards altering this condition a prolonged inquiry extending over nine days has just been held at Merthyr by the Hon. Everard Fielding, a commissioner appointed by the Privy Council to hear evidence for and against a petition which had been presented by the district council praying that a charter of incorporation should be granted to the town and parish of Merthyr. Among the inhabitants there appears to be a very general desire to obtain the charter, the opposition coming almost entirely from the large employers of labour such as Messrs. Guest, Keen, and Nettlefolds who own the great Dowlais works, from the railway companies, and from the Glamorgan County Council, this last-named authority very naturally being loth to lose a large portion of its rateable value. The population of Merthyr is about 70,000, the rateable value is £260,000, and it has an area of some 12,000 acres, so that the arguments in favour of incorporation are strong. It is of interest to record the opinion expressed by Mr. C. Neve Cresswell who held a similar inquiry in 1897 on behalf of the Privy Council. He said that he did not desire to hear any arguments as to the advantages of incorporation, for his mind had been made up for many years as to the obvious advantages of a municipal as compared with other forms of administration. With regard to the town of Merthyr itself he said that he had been about the town and had seen quite sufficient to satisfy himself that the present system of government was not sufficient for the proper government of the place. That a vigorous local government is needed in Merthyr at the present time is evident from a statement made to the commissioner in the last inquiry by Mr. D. J. Thomas, the medical officer of health, with regard to the housing of the workpeople in the town. He said that in the past two years 497 houses, or 3·5 per cent. of all the houses in the parish, had been represented as unfit for habitation and that 255 of these had been closed and 150 demolished.

### *Tobacco Poisoning.*

Instances of fatal poisoning by tobacco are sufficiently rare to warrant the recording of a case at Tredegar in Monmouthshire. A boy, 15 years of age, who had been for some time in the habit of chewing tobacco and who even took it to bed with him, became ill on the evening of May 5th, when he was found by Mr. Isaac Crawford, the colliery surgeon, unconscious and almost pulseless. In spite of injections of strychnine and stimulants the patient died on the following day. At the inquest which was subsequently held Mr. Crawford stated that tobacco chewing and smoking were largely practised by the boys of the district and that 14 years ago a boy of about the same age met with his death in Tredegar from tobacco poisoning.

### *The Treatment of Tramps.*

The large increase in the number of vagrants is now matter for discussion all over the country and at a conference of the Poor-law guardians of South Wales and Monmouthshire held at Carmarthen on May 7th the subject was very exhaustively dealt with. Mr. A. F. Vulliamy, clerk to the guardians of the Ipswich Union, maintained that vagrant wards should not be provided by the local Poor-law authority but by the nation and that they should only be situated at a reasonable day's march from one another, the professional tramp being provided with a pass ticket denoting the only places at which he would be allowed to stay the night and any deviation from the route given should render him liable to imprisonment or to be sent to a labour colony. Among the members of the conference there was a pretty general consensus of opinion that the children of habitual tramps should be taken away from them, while a Cardiff guardian pointed out that the Employers' Liability Act and the Compensation Act made it much more difficult for a man 45 years of age with a few grey hairs to obtain employment.

### *Porthcawl Rest.*

The Porthcawl Rest, which has now been established as a convalescent home for more than 20 years, is one of the best-managed institutions in South Wales and is doing a vast amount of good. At the annual meeting of the subscribers held on May 8th it was stated that the daily cost of maintenance per head had been reduced to 1*s.* from 1*s.* 6*d.* in the previous year, when the expenditure had exceeded the income by a considerable sum.

### *Pembrokeshire County Council.*

At the annual meeting of the Pembrokeshire County Council held on May 5th Mr. George Griffith, M.R.C.P. Edin., M.R.C.S. Eng., J.P., was elected chairman.

May 11th.

# SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

### *The King's Visit to Edinburgh.*

EDINBURGH—and, for the matter of that, all Scotland—is fervent with loyalty and pride at the visit of the King. To your readers, perhaps, the most interesting ceremony of the visit was that of May 13th, when His Majesty opened the newly built Colinton Mains Hospital. The hospital, which is situated about four miles from Edinburgh, is intended for the reception of cases of infectious disease and stands on a site of some 130 acres. The architect is Mr. Morham of Edinburgh. Accommodation is provided for 600 patients and 150 nurses and the total cost of the buildings was £350,000. The King was received by Lord Rosebery, the Lord Provosts of Edinburgh, Glasgow, and Dundee, and Mr. Lang Todd, Convener of the Edinburgh Public Health Committee. When their Majesties arrived Mr. Lang Todd gave a short history of the institution of the buildings, and concluded by asking the King to declare the hospital open. His Majesty, in reply, congratulated the corporation of Edinburgh and mentioned the pleasure that he and the Queen felt in their visit and that the visit had taken place at a time to enable them to open the hospital. The King having formally opened the hospital the Queen planted an English elm and His Majesty followed suit by planting a Scottish elm. Their Majesties then returned to Dalkeith.

### *The Prevention of Consumption.*

The second general meeting of the Glasgow and District Branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis was held on May 6th, when Lord Inverclyde, in the unavoidable absence of the Lord Provost, presided. The council in the report submitted to the meeting showed that considerable progress had been made towards the attainment of the objects of the association—the prevention of consumption by means of the education of the public regarding its prevalence, nature, and diffusion and the provision of suitable treatment for those who suffer from it. Among the various methods adopted—and it is believed with a considerable measure of success—have been the distribution among the working classes of over 60,000 pamphlets prepared and issued by the association, the holding of public meetings in various districts of the city, and negotiating with public companies and bodies to act upon, or to obtain if necessary, compulsory powers for the suppression of indiscriminate expectoration in public places or conveyances. Action taken in this connexion led to the enforcing of the by-law regulating the conduct of the Glasgow corporation cars, with the result that several offenders were prosecuted. A great part of the work of the branch has been in connexion with the proposed sanatorium. It is now formally announced that the small estate of Bellefield, near Lanark, consisting of about 27 acres has been acquired for the purpose. The council meantime is considering plans for the erection of pavilions and the reconstruction of the Mansion House, which when completed will provide accommodation for the treatment of 60 patients. It is intended in the meantime that the sanatorium should be set apart for male patients, because there is already in existence, in connexion with Quarrier's Homes, a sanatorium for female patients. This arrangement

will thus prevent at present any overlapping of good work. A fund for the erection of this sanatorium has been instituted and the promised contributions to date amount to over £3600. Lady Maxwell of Calderwood has also given for the purposes of the branch certain ground extending to about four acres, as also three cottages, all situated in the village of Maxwelltown, near East Kilbride, the income from which meanwhile is being applied to the general purposes of the branch. The total membership now amounts to 622, showing an increase of 166 for the past year.

*Advanced Cases of Pulmonary Tuberculosis.*

It is generally felt that the advanced cases of pulmonary tuberculosis among the working class as distinguished from the pauper class ought to have some provision made for them. This is required whether the matter is regarded from the point of view of the individual patient or from the point of view of public health. At the present time the managers of the general hospitals do not consider it to be their duty to admit such cases into their general wards—a position which is quite tenable whether we consider the welfare of the patients generally treated in these wards or the welfare of those suffering from advanced pulmonary tuberculosis where treatment is desired. Further the managers of these general hospitals cannot see their way, on account of the great demand made on their space, to set apart wards for the special treatment of these cases nor will the public health authorities undertake the duty of taking care of even those very advanced cases which are presumably acting as centres of infection. Reference is here made to others than the pauper class which should, and actually do, come under the care of the parish council. Much credit is due to Dr. J. W. Allan, late superintendent of the Belvidere Fever Hospital and now physician to the Royal Infirmary, for keeping this aspect of the question constantly before the public. It is to be hoped that his efforts will carry with them the success which they deserve and that his suggestion made in a letter to the editor of the *Glasgow Herald* of May 6th for the erection and equipment of a hospital for the treatment of such cases will get the necessary support. The state of affairs referred to is one recognised by every practitioner in the city and if rectified would diminish to a very marked extent not only the misery caused by the disease but its widespread dissemination.

*Lunacy and Alcoholic Excess in Glasgow.*

The Glasgow Lunacy District Board has authorised a committee to consider the annual reports of the medical superintendents of the Glasgow district asylums at Woodilee and Gartloch with reference to the number of patients admitted to both asylums during the year ended May 15th, 1902, as the direct result of alcoholic excess. Particulars of each case, including also the cases treated in the observation wards of Barnhill poorhouse from the same cause, have been obtained and a statistical summary of the whole has been compiled. From this it appears that during the 12 months 565 persons were admitted to the two asylums as insane and 213 were admitted to the observation wards of the poorhouse as cases of incipient insanity. Of this number no fewer than 259, or 33 per cent., were found to have become chargeable to the parish through alcoholic indulgence. The alcoholic subjects admitted to the poorhouse numbered 103, of whom 12 died, eight were admitted to the asylums, and 74 recovered.

May 12th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

*Congenital Partial Intestinal Occlusion.*

M. BŒCKEL at the meeting of the Academy of Medicine held on April 14th read an account of the case of a child, aged 18 months, who within six weeks after birth showed evident signs of intestinal obstruction with considerable meteorism. The introduction of tubes into both the rectum and the stomach as well as puncture of the intestine having given no results laparotomy was performed. There was found to be an enormous volvulus of the sigmoid flexure. This portion of the gut was resected and the two extremities were joined together. The abdomen was then closed and the patient rapidly recovered. M. Bœckel considered that the case was one of intestinal occlusion commencing during intra-uterine life and due to twisting of the sigmoid flexure, the condition being aided by an abnormal development of the mesocolon.

*Researches into the Nature of Nephro-toxins.*

M. Bierry laid before the Academy of Sciences on April 6th a paper upon Nephro-toxins. He referred to his previous work on the subject in which he had found that substances which were nephro-toxic for the dog could be produced in the blood of rabbits which had received an intraperitoneal injection of the pounded kidney of the dog. He had also found that properties which were nephro-toxic for the dog could be produced in the blood of rabbits into which had been injected simple nucleo-albumins derived from the kidneys of dogs. If a dog from 12 to 15 kilogrammes in weight received an injection of between 20 and 25 cubic centimetres of the blood of a rabbit which had been thus injected the dog showed on the third day albuminuria which increased up to the tenth or fifteenth day. On comparing the effects of the blood as a whole, of the fibrin, of the serum, and of the corpuscles he was enabled to state that the last two were the most poisonous. It would therefore appear that a nephro-toxin is a leucocyte poison. The urine of dogs which has been made albuminuric by this method contains in addition to serin and globulin certain albumoses, but never contains glucosazone.

*The Relations between Acromegaly and Giantism as exemplified by the Post-mortem Examination of the Giant Constantine.*

At the meeting of the Hospitals Medical Society held on May 8th M. Dufrane, M. Launois, and M. Pierre Roy showed the society certain portions of the skeleton of the giant Constantine who died in the Mons Hospital from septicæmia following a double amputation of the legs for symmetrical gangrene. The cranium showed the deformities characteristic of acromegaly. Prognathism of the lower jaw was very marked, while the sella turcica was much dilated and the pituitary body was larger than a walnut. The inferior extremities were disproportionately long as regards the trunk. The lower epiphysis of the femur and the upper epiphysis of the humerus had not united, though Constantine was 29 years of age when he died. These two abnormalities, taken in conjunction with the atrophy of the genital organs which existed, are typical of the "infantile giantism" described by M. Launois and M. Pierre Roy. But whereas in the case of Constantine the long bones continued to grow in length (*hyperostéogénèse enchondrale*) the bones of the cranium were deformed as in acromegalics (*hyperostéogénèse périostique*). The condition of the epiphyseal cartilages, by which can be differentiated the two clinical forms of giantism of infantile type and acromegaly (the two coexisted in Constantine's case) resolves the problem of the relations between acromegaly and giantism. It can now be affirmed that if all giants are not acromegalic *in esse*, yet at least all of them are so *in posse*.

*The International Congress of Tuberculosis.*

Last week a meeting was held in Paris of the committee of the International Congress of Tuberculosis. The delegates for the chief countries were—for Germany, M. von Leyden; for England, Dr. Hillier; for Austria, M. von Schraeder; for Belgium, M. Dewes; for Denmark, M. Roerdan; for Spain, M. Espina y Capo; for Norway, M. Holmoe; for Portugal, M. de Lancastre; for Russia, M. Blumenthal; for Switzerland, M. Schmitt; and for France, Dr. Brouardel. The various delegates described the steps as to tuberculosis which had been undertaken in their respective countries. Visits were paid to the Ormesson Hospital, where veritable miracles in the way of recoveries take place under the care of Dr. Petit and Sister Candide, and to the Calmette Dispensary at Lille. Without going into all the questions raised it may be said that the foreign delegates with M. von Leyden at their head were unanimous in praising the results which have already been attained in France. The effects of the ideas put forward by M. Albert Robin at his well-known conference some two months ago are already visible and the theory of the "barrack sanatorium," against which the famous French *savant* argued so energetically, has given place to more rational, more economical, and more efficacious measures.

May 13th.

UNIVERSITY OF LONDON: FACULTY OF MEDICINE.—A meeting of the Faculty of Medicine of the University of London will be held at South Kensington at 5 P.M. on Friday, May 22nd. The Faculty will consider a report recently rendered to the Senate by the Board of Studies in Dentistry with regard to the establishment of special degrees in dental surgery, together with proposed regulations for the curriculum of study and for examinations in this subject. A minority report has been submitted to the Senate and will also come under the consideration of the Faculty.

# Medical News.

UNIVERSITY OF CAMBRIDGE.—At the third examination for medical and surgical degrees, Easter term, the following candidates were successful:—

*Part II. Medicine, Surgery, and Midwifery*—H. Ackroyd, B.A., and L. E. H. R. Barker, B.A., Caius; J. R. Bentley, Emmanuel; G. T. Birks, B.A., King's; A. R. Brailey, M.A., Downing; W. H. Brailey, M.A., Queens'; H. N. Burroughes, B.A., Trinity; W. B. Crowfoot, B.A., Emmanuel; H. A. Cutler, M.A., Clare; W. F. L. Day, B.A., Caius; R. S. Drew, B.A., Pembroke; E. A. Ellis, B.A., Downing; J. E. Frere, B.A., Pembroke; J. D. H. Freshwater, M.A., Trinity; E. V. Gostling, B.A., Caius; F. W. Goyder, B.A., St. John's; G. W. Greene, B.A., Downing; T. Guthrie, B.A., King's; W. L. Harnett, B.A., St. John's; W. Hill, B.A., Emmanuel; B. Hudson, B.A., Clare; H. L. P. Hulbert, M.A., and F. S. Kidd, B.A., Trinity; P. W. Leathart, B.A., Clare; H. B. McCaskie, B.A., Caius; F. B. Manser, B.A., Peterhouse; G. W. Micklethwait, M.A., Trinity; P. K. Muspratt, B.A., Christ's; G. B. Norman, B.A., St. John's; P. N. Panton, B.A., Trinity; H. I. Pinches, B.A., Sidney Sussex; F. Richmond, B.A., Clare; G. R. Rickett, B.A., King's; H. Robinson, B.A., Trinity; W. T. Scott, B.A., Clare; R. D. Smedley, M.A., Pembroke; J. E. Spicer, B.A., Trinity; J. M. Stenhouse, B.A., Sidney Sussex; W. J. Susmann, B.A., Caius; B. N. Tebbs, M.A., Queens'; H. T. Thompson, M.A., Christ's; E. Weatherhead, St. John's; F. Whitaker, B.A., and L. E. Wigram, B.A., Trinity; H. L. Wilson, B.A., H. Selwyn; H. C. S. Woodward, M.A., Downing; and G. A. Wright, Christ's.

ROYAL COLLEGE OF PHYSICIANS AND ROYAL COLLEGE OF SURGEONS IN IRELAND.—The under-mentioned have passed the examination for the Conjoint Diploma in Public Health:—

*A. Honours.*—G. F. A. Smythe, F.R.C.S. Edin., Lieutenant-Colonel R.A.M.C., and J. Dorgon, M.B., B.Ch., Captain R.A.M.C.

*B. Pass.*—Geo. Hamill, F.R.C.S. Irel.; M. C. Beatty, L.R.C.P. and S., Lieutenant R.A.M.C.; R. A. Campbell, L.R.C.P. and S.; F. G. O'Donohue, L.R.C.P. and S.; John O'Hare, M.B., B.Ch.; W. C. Rivers, M.R.C.S.; and R. Huntly Nicholson, M.R.C.S., Colonel R.A.M.C.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Eusebio Oehl, professor of physiology in the University of Pavia.—Dr. Nepveu, professor of pathological anatomy in the Marseilles Medical School.—Dr. La Bonnadière, professor of hygiene and therapeutics in the French Medical School, Beyrout.—Dr. G. Gevaert, *agrégé* in the Medical Faculty of the Brussels University.—Dr. Anton Bumm, professor of psychiatry in the University of Munich, at the age of 54 years. He had previously been professor in Erlangen. His best known papers are on the Physiology of the Brain and Nervous System.—Dr. Gustav von Veit, at Gevelsdorf in Pomerania, where he has been living since his retirement from the chair of Gynæcology in the University of Bonn some ten years ago. He may be considered as one of the founders of modern gynæcology, his name being more particularly connected with the introduction of the bimanual method of examination of the uterus and its appendages. He was in his eightieth year.

ROYAL COLLEGE OF SURGEONS IN IRELAND—At a meeting of the President, Vice-President, and Council held on May 5th the following examiners were elected:—In anatomy: Ambrose Birmingham and Alexander Fraser. In surgery: F. Conway Dwyer, A. Fullerton, T. E. Gordon, and R. Lane Joynt. In physiology and histology: E. L'E. Ledwich and Charles Coppinger. In ophthalmology: Arthur H. Benson and Patrick W. Maxwell. In pathology and bacteriology: Arthur Hamilton White. In pathology: R. Allen. In midwifery and gynæcology: Frederick W. Kidd. In biology: John J. Burgess. In sanitary law and vital statistics: C. J. Powell. In engineering and architecture: J. Charles Wilmot. In dental surgery and pathology: Daniel Corbett, jun., and W. G. Story. In mechanical dentistry: George M. P. Murray and William Booth Pearsall. In chemistry and physics: Edward Lapper and R. J. Montgomery. In languages: L. J. Woodroffe. In mathematics, physics, dictation, and English essay: J. W. Tristram.—A meeting of the Fellows will be held on Saturday, May 30th, at 1 P.M., to receive the annual report of the council. A meeting will also be held on Monday, June 1st, at 1 P.M., pursuant to the provisions of the charters, to elect a president, vice-president, council, and secretary of the College for the ensuing year. Fellows who may desire to have their names printed on the list of candidates for office are requested to signify their wish by letter to the registrar at the College on or before Tuesday, May 19th, as it is necessary to include the names in the voting papers which are forwarded to the Fellows and no candidate is eligible unless his application is received within the date specified.

LITERARY INTELLIGENCE.—The Scientific Press will shortly issue a small handbook entitled "A Practical Guide to Surgical Bandaging and Dressing," by W. Johnson Smith, F.R.C.S. Eng.

CHILDHOOD SOCIETY.—A meeting of this society, which has for its object the scientific study of the mental and physical conditions of children, was held on May 11th at 7, St. James's-square, London, S.W., Earl Egerton of Tatton, the President, being in the chair.—Professor J. Edgar, M.A., Professor of Education in the University of St. Andrews, delivered an address on the Universities and Scientific Study of Children, with special reference to the Teaching Profession. The following motion, proposed by Mr. E. W. Brabrook, C.B., and seconded by Sir James Crichton Browne, F.R.S., was carried unanimously:—

That it is desirable that the Elementary Education of Defective and Epileptic Children's Act, 1899, should be compulsory on educational authorities and that special training should be given at one or more training colleges for teachers who wish to qualify for the care of defective children. That the Government be requested to institute an inquiry into the best means of dealing with defective classes in after life and for determining the authority to be entrusted with that duty.

# Parliamentary Intelligence.

## HOUSE OF COMMONS.

THURSDAY, MAY 7TH.

*Small-pox in Liverpool.*

MR. WEIR asked the President of the Local Government Board whether he was aware that when application was made to the clerk to the sanitary authority of Liverpool for permission to search the list of small-pox patients which he was required to keep under the Vaccination Act, 1898, the applicants were sent to the various small-pox hospitals for the purpose of inspecting the registers there; and whether arrangements could be made for the register to be kept in the clerk's office.—MR. GRANT LAWSON, who replied, said: I understand that the hospital committee of the town council has imposed the obligation of making the entries in the small-pox register on the physician of the hospital and that the register is available at the office of the hospital for any person who desires to inspect it. I am informed by the town clerk that arrangements could be made for having it at some other office but that if this was done it would not be possible to keep the register so well up to date or so accurately as at present.

Mr. WEIR also asked the President of the Local Government Board whether he was aware that the present epidemic of small-pox in Liverpool had already lasted for a period of six months, during which time there had been about 1400 cases and 90 deaths; and whether, seeing that the epidemic was spreading, he would consider the advisability of deputing one of the Board's medical inspectors to inquire and to report in regard to the measures which were being adopted by the Liverpool health authorities to cope with the disease.—MR. GRANT LAWSON, who replied, said: I am aware of the small-pox epidemic at Liverpool. At an early period of the outbreak one of the medical inspectors was directed to visit the district and to confer with the local authorities as to the measures to be taken and I have no reason to suppose that they are not doing their utmost in this matter. I may mention that the latest returns do not show that the epidemic is increasing.

*Human Lymph.*

Mr. WEIR asked the President of the Local Government Board if he would state when public vaccinators discontinued the use of human lymph and for what reason its use was abandoned.—Mr. LONG replied: The use of human lymph by public vaccinators was discontinued at the beginning of 1899 when the Vaccination Act of 1898 came into operation. The change was made in view of the recommendation of the Royal Commission on Vaccination.

*"False Description in the Spirit Trade."*

Mr. T. M. HEALY asked the Chancellor of the Exchequer if he would state the total quantity of spirit distilled in England during the year 1902 and how much was used for methylation, rectifying, and compounding purposes; whether any English spirit was used as whisky in Excise or Customs warehouses in Leith; and, if so, what was the total quantity despatched thereto from distilleries in England; what were the materials from which English spirit was usually distilled; and if any beet molasses from abroad was used in its manufacture.—Mr. RITCHIE replied: The total quantity of spirits distilled in England during the year ended March 31st, 1903, was 11,286,563 proof gallons. The quantity of home made spirits used for methylation for the same period was 3,574,733 proof gallons. I have no means of knowing the quantities used for rectifying and compounding. English spirit is used in the warehouses at Leith but I have no means of knowing the quantities. The materials from which English spirit is usually distilled are malt, unmalted grain, molasses, sugar, glucose, and rice. No doubt beet molasses is used to some extent but I have no means of knowing the quantities.

Mr. T. M. HEALY asked the Chancellor of the Exchequer whether any official information had reached him that in preparing whisky for the market frauds were practised in bond by the users of patent still spirit under the supervision of the Government officials; whether he would consider the advisability of bringing the sale of spirituous liquors under

the supervision of the Sale of Food and Drugs Acts in the same manner as milk, butter, and other articles of consumption; and whether in the interests of the public health the Government would inquire whether chemical analysis by modern methods was now able to determine practically the composition of alcoholic liquors.—Mr. RITCHIE replied: In reply to the first clause of the question I have no official information on the subject. In reply to the second clause I do not think this matter falls within the province of the Treasury. In reply to the third clause, if the intention be to ascertain whether chemical analysis is able to determine the relative proportion of raw grain or patent-still spirit and malt or pot-still spirit in a mixture of the two the answer is that as both these spirits vary considerably in their chemical characteristics only an approximate estimation at best could be made in the case of a blend of which the origin and constituent ingredients were unknown.

Mr. HEALY: Has the right hon. gentleman seen a statement on the subject in THE LANCET?—Mr. RITCHIE: No, I have not.

*Granard Union Hospital.*

Mr. TULLY asked the Chief Secretary to the Lord Lieutenant of Ireland whether the Local Government Board could state the decision arrived at as the result of the sworn inquiry in Granard Union into the action of the medical officer and his management of the union hospital.—Mr. WYNDHAM replied: The decision has not yet been come to. It will be communicated in the ordinary course to the guardians.

*Nursing Arrangements in Irish Rural Districts.*

Mr. TULLY asked the Chief Secretary to the Lord Lieutenant of Ireland whether the Local Government Board could state on what grounds it ordered a sworn inquiry in Strokestown Union as to the nursing arrangements in the rural districts of the union and what had been the result and why the Local Government Board proposed to hold a similar inquiry in Boyle Union.—Mr. WYNDHAM replied: The inquiry at Strokestown was caused by the reports of the Board's medical inspector. The result of the inquiry established the recommendations of the inspector. The inquiry at Boyle is proposed for similar reasons.

*The Midwives Board.*

Sir WALTER FOSTER asked the Secretary to the Board of Education whether the Midwives Board, appointed under the provisions of the Midwives Act which came into force on April 1st, had held any meetings since that date and if so when the minutes of such meetings would be issued for information.—Sir WILLIAM ANSON replied: The Midwives Board has met several times since April 1st for the purpose among other things of framing rules under the third section of the Act. These rules when approved by the Privy Council will be published, but the minutes of the board's meetings are for the exclusive information of the board.

*Malarial Fever in Uganda.*

Mr. HERBERT SAMUEL asked the Under Secretary of State for Foreign Affairs whether he was aware that huts had recently been built at Entebbe for a number of natives belonging to the Uganda Marine and their families in close proximity to the houses of Europeans; and whether, with the view to combating the spread of malaria, the Foreign Office would direct the removal of these huts to another site.—Viscount CRANBORNE replied: The question of the situation of the native settlements at Entebbe is receiving the careful attention of the Commissioner and the principal medical officer who are in the best position to judge what can be done and have a free hand in the matter.

Mr. HERBERT SAMUEL also asked the Under Secretary of State for Foreign Affairs whether he was aware that the town of Entebbe, the administrative capital of the Uganda Protectorate, had no water-supply other than water carried by porters from the lake and that this water was contaminated by sewage; whether the local medical officers had made any recommendations on this subject; and if so whether their recommendations would be carried into effect.—Viscount CRANBORNE replied: The water-supply at Entebbe is receiving the attentive consideration of the Commissioner and his medical advisers. Suggestions have been made for bringing the water in pipes from some distance out in the lake and for digging wells, but hitherto the reports we have received upon the quality of the water have not been unfavourable. The local authorities have a free hand within reasonable limits and are alive to the importance of the question.

*Physical Training in Scotland.*

Mr. SHAW-STEWART asked the Lord Advocate what steps were being taken to carry out the recommendations of the Royal Commission on Physical Training (Scotland) regarding the appointment of a skilled committee to prepare a model course containing exercises adapted to the requirements of the differently situated schools and the different ages, sexes, and conditions of health of the children in Scotland.—The LORD ADVOCATE replied: The special recommendation of the Royal Commission to which the hon. Member refers has received the attention of the Scottish Education Department and steps are now being taken, along with the Board of Education, to nominate a joint committee for the purpose indicated. It is hoped that the committee will begin work shortly.

Mr. SHAW-STEWART also asked the Lord Advocate whether he could state what steps were being taken to obtain the assistance of medical officers to carry out the recommendations of the Royal Commission on Physical Training (Scotland) for establishing a system of medical inspection of the children in all schools; and whether, in aid of the remuneration of their services, provision would be made out of the Parliamentary vote; also if any arrangements were being made for the appointment, to serve under the Education Department, of sub-inspectors, male and female, for the purpose of assisting in sanitary matters the existing staffs of schools.—The LORD ADVOCATE replied: The Scottish Education Department is now in communication with representatives of those interested in order to obtain their views as to the recommendation referred to and the means by which it can be carried out. When their lordships are in possession of these views they will consider what, if any, proposals may be submitted to the Treasury as to the financial arrangements.

FRIDAY, MAY 8TH.

*Vivisection.*

Sir FREDERICK BANBURY asked the Secretary of State for the Home Department if he would state under what certificate the operation on a brown dog was performed at University College Hospital on Feb. 2nd last; and whether, seeing that a second operation was performed upon this animal before the wounds caused by the first operation had healed, he proposed to take any action in the matter.—Mr. AKERS-DOUGLAS replied: The operation to which I understand the hon. Member refers was performed under Certificate C. It is true that at the time there was an unhealed wound in the body of the dog. This was an incision made very shortly before by another licensee for the purpose of examining the condition of an organ upon which he had previously carried out an operation, from which the animal suffered no ill-effects. Previously to the making of the incision the animal was placed under anæsthetics and while still in that condition was brought into the theatre for the purpose of the experiment under Certificate C. During the whole of the latter the animal continued under anæsthetics and was eventually taken away and killed before it recovered consciousness. In these circumstances there appears to be no action which I am called upon to take.

Mr. WEIR asked the Secretary of State for the Home Department if he would state the number of persons holding certificates to practise vivisection at London University College, the qualifications of the operators, the nature of the certificates which they respectively held, and the source from which they obtained the dogs on which they experimented.—Mr. AKERS-DOUGLAS replied: The information asked for, with the exception of the last item, is contained in the Annual Return of Experiments on Living Animals, of which the volume for the year 1902 will be issued very shortly. I have no information as to the source from which the animals are obtained.

*Glycerinated Calf Lymph.*

Mr. WEIR asked the President of the Local Government Board if he would state the number of tubes of glycerinated calf lymph which were produced, not issued, during the year 1901-02 at the Local Government Board vaccine station.—Mr. LONG replied: I am unable to state the number of tubes produced. The lymph is only placed in tubes with a view to immediate issue.

*Guards' Hospital, Westminster.*

Captain JESSEL asked the Secretary of State for War if he would state how many cases of infectious disease were being treated in A Block of the Guards' Hospital, Rochester-row, Westminster; and whether, as the hospital was in close proximity to the sleeping rooms of the boys of the Newport Market Army Training School, Coburg-row, Rochester-row, he would take measures to remove the patients elsewhere.—Mr. BRODRICK replied: The mild varieties only of infectious diseases which do not require notification under the Infectious Diseases Act are treated at Rochester-row Hospital, such as measles and mumps. There is considered to be no danger of infection being spread to the boys of the school mentioned.

MONDAY, MAY 11TH.

*Another Lymph Question.*

Mr. WEIR asked the President of the Local Government Board if he would state the number of private establishments in Great Britain for the production of animal vaccine lymph.—Mr. LONG replied: I am unable to state the number of establishments of the kind referred to. The hon. Member will, however, find some information on the subject in an article in THE LANCET of June 7th, 1902.

Mr. WEIR also asked the Home Secretary whether his attention had been called to an experiment made on a dog on Feb. 2nd last at the London University College and whether he would take steps to secure that such experiments shall be discontinued or conducted only in the presence of a Home Office inspector and while the animal is under the influence of anæsthetics.—Mr. AKERS-DOUGLAS replied: Inquiry into this case shows that during the whole of the experiment and until it was killed the dog was under anæsthetics. I am afraid that I cannot adopt the hon. Member's other suggestions.

TUESDAY, MAY 12TH.

*Royal Commission on Arsenical Poisoning.*

Sir CUTHBERT QUILTER asked the President of the Local Government Board whether he could state when the final report of the Royal Commission on Arsenical Poisoning, appointed in January, 1901, was likely to be issued.—Mr. LONG replied: I understand that the commission has almost completed its inquiries, and is about to prepare its final report; but I am unable at present to state when it is likely to be issued.

WEDNESDAY, MAY 13TH.

*Another Vivisection Inquiry.*

Sir FREDERICK BANBURY asked the Home Secretary whether the dog operated upon in the theatre at University College on Feb. 2nd was killed immediately after its removal from the theatre.—Mr. AKERS-DOUGLAS: The answer is in the affirmative.

# Appointments.

***Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.***

CASE, HENRY, L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer and Public Vaccinator to the Withnell district of the Chorley Union.

CLARKE, A. H., M.R.C.S., L.R.C.P. Lond., has been appointed Honorary Pathologist to the General Hospital, Hobart, Tasmania.

COGSWELL, P. D., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Act for the Broughton Astley district of the county of Leicester.

COSGRAVE, F. R., M.D. Dub., has been appointed Certifying Surgeon under the Factory Act for the Burton-in-Kendal district of the county of Westmoreland.

FISCHER, G. A., M.B., B.S. Adel., has been appointed Physician in Charge of the Nose and Throat Department of the Adelaide Hospital, South Australia.

GRIFFITHS, J., M.R.C.S., has been appointed Certifying Surgeon under the Factory Act for the Llandrindod Wells district of the county of Radnor.

HORNE, MAYNARD, M.B., B.C. Cantab., has been appointed Honorary Physician to the Margaret-street Hospital for Consumption.

HUBBARD, W. L., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Act for the Edenbridge district of the county of Kent.

JEAFFRESON, G. C., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Act for the Framlingham district of the county of Suffolk.

MARTIN, JOHN MIDDLETON, B.A., M.B., B.C. Cantab., D.P.H., L.S.A. Lond., has been re-appointed Medical Officer of Health for the Stroud Urban District.

RAMSBOTTOM, C. H. G., M.D. Viet., has been appointed Certifying Surgeon under the Factory Act for the Bungay district of the county of Suffolk and the Ditchingham district of the county of Norfolk.

RICHARDS, J. B. O., L.R.C.P. Edin., L.P.C.S. Edin., L.F.P.S. Glasg., has been appointed Certifying Surgeon under the Factory Act for the Wadebridge district of the county of Cornwall.

RITCHIE, J., L.R.C.P., L.R.C.S. Edin., has been appointed Certifying Surgeon under the Factory Act for the Old Deer district of the county of Aberdeen.

SCARLETT-SYNGE, Mrs., M.D. Brux., L.S.A., L.M., has been appointed by His Excellency the Lieutenant-Governor of the Orange River Colony to be Medical Officer to the Government Normal College, Bloemfontein, and to the High School, Bloemfontein.

WACHER, S., F.R.C.S. Eng., has been appointed Certifying Surgeon under the Factory Act for the Canterbury district of the county of Kent.

WELCH, CHARLES HERBERT, L.R.C.P. Lond., M.R.C.S., has been appointed Visiting Medical Officer to the Royal United Hospital, Bath.

WHITAKER, L. E., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Act for the Diss district of the county of Norfolk.

WILLIS, C. S., M.B., M.Ch. Syd., has been appointed Officer of Health, Lennonville, West Australia.

WRIGHT, W. S., L.S.A., has been appointed Certifying Surgeon under the Factory Act for the Wool district of the county of Dorset.

# Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

ASYLUMS COMMITTEE OF LONDON COUNTY COUNCIL, Epileptic Colony, Ewell, Surrey.—Assistant Medical Officer. Salary £200 per annum, with board, apartments, and washing.

BETHLEM HOSPITAL.—Two Resident House Physicians (unmarried) for six months. Honorarium at rate of £25 each per quarter, with board and residence.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES, John Bright-street, Birmingham.—Clinical Assistant. Honorarium at rate of 52 guineas per annum.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Surgical Officer. Salary £60 per annum, with board, washing, and attendance.

BIRMINGHAM CORPORATION.—Medical Officer of Health. Salary £1000 per annum.

BRIGHTON THROAT AND EAR HOSPITAL, Church-street, Queen's-road.—Non-resident House Surgeon for six months, renewable. Salary at rate of £75 per annum.

CHICHESTER INFIRMARY.—Honorary Medical Officer.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House Surgeon, unmarried. Salary £80 per annum, with board, lodging, and washing.

DENBIGHSHIRE INFIRMARY, Denbigh.—House Surgeon. Salary £110, with board, residence, and washing.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—House Surgeon. Salary £100 per annum. Also Assistant House Surgeon. Salary £70. Both with apartments, board, and laundry.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Physician for six months. Honorarium of £25, with board and residence.

EAST SUFFOLK AND IPSWICH HOSPITAL.—Second House Surgeon, unmarried. Salary £80 per annum, with board, lodging, and washing.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge-road, S.E.—Anæsthetist. Honorarium £25 per annum.

GLASGOW SAMARITAN HOSPITAL FOR WOMEN.—House Surgeon (female).

GREENWICH UNION INFIRMARY.—Junior Medical Officer. Salary £100 per annum, with apartments, rations, washing, &c.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—House Surgeon, unmarried. Salary £75 per annum, with residence, board, and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Physician, unmarried, for six months. Salary £20, with board and residence.

HOSPITAL FOR WOMEN, Soho-square, W.—House Physician for six months; salary £50 for that period. Also Assistant Physician.

INDIAN MEDICAL SERVICE, India Office, London, S.W.—Examination for not less than Sixteen Commissions in His Majesty's Indian Medical Service.

KETTERING AND DISTRICT GENERAL HOSPITAL.—House Surgeon. Salary £75 per annum, with apartments, board, and laundry.

LIVERPOOL EYE AND EAR INFIRMARY.—House Surgeon. Salary £80, with residence and maintenance.

LIVERPOOL, MILL-ROAD INFIRMARY.—Assistant Medical Officer, unmarried. Salary £120 per annum, with board and apartments.

LONDON HOSPITAL, Whitechapel, E.—Assistant Obstetric Physician.

MIDDLESEX HOSPITAL, W.—Director of Cancer Research Laboratories. Salary £500, rising to £800 per annum. Also Research Scholarship, value £105 per annum.

NEWCASTLE-UPON-TYNE CITY ASYLUM, Gosforth.—Assistant Medical Officer, unmarried. Salary £140 a year, rising to £160, with apartments, board, and laundry.

NEWCASTLE-UPON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary £160, for first year and £180 afterwards.

NEW HOSPITAL FOR WOMEN.—House Physician, House Surgeon, and Resident Medical Officer. All females.

NORTHAMPTON GENERAL HOSPITAL.—Assistant House Surgeon, unmarried. Salary £75 per annum, with apartments, board, attendance, and washing.

NORTH DEVON INFIRMARY, Barnstaple, Devon.—House Surgeon. Salary £80 per annum, with board, residence, and washing.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer, also Assistant Resident Medical Officer, for six months. Salary at rate of £50 per annum in each case, with board, residence, and washing.

POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—Assistant House Surgeon for six months. Salary at rate of £80 per annum, with board and residence.

ROYAL ALBERT HOSPITAL, Devonport.—Resident Medical Officer, unmarried. Salary £100 per annum, with board and lodging.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Member of the Court of Examiners.

SALISBURY INFIRMARY.—House Surgeon. Salary £100 per annum. Also Assistant House Surgeon. Salary £75 per annum, with apartments, board, and washing. Both unmarried.

SEAMEN'S HOSPITAL SOCIETY ("DREADNOUGHT").—Senior House Surgeon and Registrar. Salary £100 per annum, with board and residence.

SHEFFIELD ROYAL HOSPITAL.—Junior Assistant House Surgeon, unmarried. Salary £50 per annum, with board, washing, and apartments.

SOCIETY OF APOTHECARIES OF LONDON.—Examiner in Physiology.

SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeon, unmarried, for six months, renewable. Salary at rate of £70 per annum, with residence, board, and washing.

UNIVERSITY OF GLASGOW.—Additional Examiner for Degrees in Arts, Science, and Medicine, with special reference to Zoology. Salary £50 per annum, with travelling and hotel expenses.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Junior House Surgeon. Salary £50 per annum, with board, lodging, washing, and attendance.

WESTMINSTER GENERAL DISPENSARY.—Resident Medical Officer. Salary at rate of £120 per annum, with rooms, gas, coal, and attendance.

WEST RIDING ASYLUM, Wadsley, near Sheffield.—Fifth Assistant Medical Officer. Salary £140, rising to £160, with board, &c.

YORK COUNTY HOSPITAL.—House Physician. Salary £100 per annum, with board, residence, and washing.

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AN appointment as Medical Referee under the Workmen's Compensation Act is vacant for Colchester, Chelmsford, Braintree, Dunmow, Halstead, Harwich, and Maldon County Courts.

THE Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies as Certifying Surgeons under the Factory and Workshop Act at Nailsworth, Gloucestershire; North Wheatley, Nottinghamshire; Tullow, in the county of Carlow; Cahir, in the county of Tipperary; Grangemouth, in the county of Stirling; Aboyne, in the county of Aberdeen; and at Ballyduff, in the county of Kerry.

# Births, Marriages, and Deaths.

## BIRTHS.

BROWN.—On May 9th, 1903, at Mount Lodge, Silver Valley, Callington, Cornwall, the wife of George Brown, M.R.C.S. Eng. (late of 6, Gibson-square, Islington, N.), of a daughter.

FURNIVALL.—On May 9th, at Weymouth-street, W., the wife of Percy Furnivall, F.R.C.S. Eng., of a daughter.

HEPBURN.—On May 6th, at South Lowestoft, the wife of Malcolm L. Hepburn, M.D., F.R.C.S., of a daughter.

WATSON.—On May 6th, at the Hollies, Leigh-on-Sea, the wife W. Douglas Watson, M.R.C.S., L.R.C.P., of a daughter.

## MARRIAGE.

FISH—SOUTHON.—On Tuesday, May 12th, Cecil Edgar Fish, M.B., M.R.C.S., B.A. Cantab., of Llanbedr Hall, Ruthin, to Susie Constance, daughter of the late Richard Southon, of Port Elizabeth, S. Africa, and niece of Thos. E. Fuller, of 39, Hyde Park-gate, S.W.

## DEATHS.

BAGSHAW.—On May 6th, at Carlisle House, Eastbourne, Thomas Washington Bagshaw, M.A., M.D. Cantab., in his 55th year.

BARCLAY.—On May 9th, at Amberley, Glos., Wilfred Martin Barclay, F.R.C.S. Eng., youngest son of the late Surgeon-General Charles Barclay, Madras Army.

BIRKETT.—On May 8th, at Westbourne Rectory, Sussex, Edmund Lloyd Birkett, M.D. Camb., F.R.C.P. Lond.

SCOTT.—On April 27th, at Tivoli, near Rome, Colonel Frederick Beaufort Scott, C.M.G., R.A.M.C., very suddenly, in his 65th year

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births Marriages, and Deaths.*

# Notes, Short Comments, and Answers to Correspondents.

## A LADY'S VIEWS.

OUR attention has been called to an article published in the *Star* of Wednesday, April 22nd, entitled "The Medical Trade Union," and written by a Dr. Helen Bourchier. The article is the usual rubbish to be found in many lay papers when they begin to discuss the medical profession at large, as is sufficiently indicated when we say that the "Medical Trade Union" appears to be one of the lady's terms for the General Medical Council. The only point of the whole article that is worth attention is the fact that it should have appeared in a well-edited evening journal with a deeper sense of the responsibility which it owes to the public than many of our popular newspapers. The articles in the *Star* on literature and art are sound honest journalism. With regard to matters medical the paper is frankly antagonistic to our profession, probably from a desire to show that it speaks for the public and not for a section. We do not suppose, however, that it desires to give currency to complete misstatements. We should like to know how such rubbish as this found its way into the columns of a responsible paper. "A doctor must belong to the General Medical Council, or by Act of Parliament he is forbidden to sue for his fees in a Court of Law," &c. Thus Dr. Helen Bourchier, who seems to think that all the 37,000 registered practitioners are members of the General Medical Council, a body which she has mixed up with the British Medical Association or with the official roll of the profession. The gist of her article is to strike a note of warning against the Medical Act Amendment Bill because "it proposes to give greater powers to the already too powerful General Medical Council." "First," she says, "the Council is to have power to suspend a registered practitioner for any length of time it sees fit." She is of course utterly unaware that the reform is being taken in the direct interests of men whom she is trying to regard as victims—viz., those who fall under the unfavourable notice of the Council. At the present moment the General Medical Council can inflict but one form of punishment. All "infamous conduct in a professional respect," whether it be the procuring of criminal abortion or the unfortunate wording of an advertisement, the traffic in secret cures or the improper use of an assistant, is punished in the same way—the offender is struck off the roll of the medical profession. The desire of the Council is to have some scale of penalties so that this tremendous punishment may not be meted out equally for the serious offence and the venial lapse. The power that the Bill would give the Council is the power of mercy—a discretion enabling it to make the punishment fit the crime, whereas now it is compelled to punish great and small offenders alike. The body that is trying to effect this reasonable change is stigmatised by this lady as "the modern Star-Chamber commonly called the General Medical Council." With regard to the writer of the article in the *Star*, we have a shrewd idea that nothing that we could ever say would lead her to alter her views. Not being herself on the Medical Register and having no official status entitling her to practise medicine in this country she girds at the General Medical Council perhaps to show that it is not her want of registrable qualifications but the narrow organisation of the Council that prevents her from practising medicine. We know this view: it is the line taken up by every advertising quack in the country. The General Medical Council is not above criticism, for the Acts of Parliament by which it was created and under which it has been amended are imperfect. But the General Medical Council exists for the protection of the public and not of the medical profession, as everyone knows. By keeping an official roll it makes the action of the public in consulting quacks a wilful act; and by purging that roll of wrongdoers it safeguards the public's interest.

## ERYTHROXYLUM COCA.

ACCORDING to the British Pharmacopœia the dried leaves of *Erythroxylum coca*, from which cocaine is extracted, are imported from Bolivia and Peru. The **May** number of the *Illustrated Scientific News* states that this plant, among others of medicinal value, is now being cultivated experimentally in the Victoria Botanical Garden of the Cameroons, German West Africa, but a firm of alkaloid makers in Germany, to whom some of the leaves were sent, found them to contain only 0·28 per cent. of total alkaloid.

## SOLICITORS, THEIR CLIENTS, AND THE MEDICAL ATTENDANT.

*To the Editors of* THE LANCET.

SIRS,—I should be glad of your opinion on the following case. I was called in by a Miss C to attend her. I was informed by my patient that her account would be paid by her solicitors and I sent it to them, my patient writing to them at the same time requesting payment. The solicitors objected to the amount of the fees, although they acknowledged that they were the usual ones and that they had instructions from my patient to pay the account as it stood. In spite of this I was compelled to reduce my charges to the extent of £4 in order to get it settled. My patient told me on subsequent visits that pressure was being brought on her to change her medical attendant but that she had no wish to do so. However, that this pressure was successful is proved by the fact that three days after my visit to my patient, and when she had assured me of her confidence in my care and attention to her, I received a curt letter from the solicitors informing me that they had written instructions from Miss C to dismiss me from the case and call in another medical man. No explanation was given me of this extraordinary conduct of a firm of solicitors to their client's medical attendant and it appears to me that if the medical man in attendance in a case is to be in the power of a solicitor in this way his position will be unendurable, but I hope it to be a unique example of a solicitor exceeding his duty and unduly using his position to have a medical man dismissed from his patient.

I am, Sirs, yours faithfully,
May 12th, 1903. M.R.C.S. Eng.

**** It is to be regretted that our correspondent made any reduction in the usual fees at the instance of the solicitors, unless he knew that his patient was in pecuniary difficulties. We cannot express any opinion upon the attitude taken up by the solicitors generally, as we know nothing of their client or the circumstances in which they are acting for her.—ED. L.

## NO MORE DEATH.

THE following extraordinary card has been brought to our attention by readers living in one of the southern suburbs. It is circulated publicly and is presumably a counterblast upon the part of the Christian Scientists to the just ridicule of their absurdities which recently emanated from the pulpit at Plaistow, Kent (*vide* THE LANCET, March 21st, p. 823).

*GLORIOUS NEWS!!*

CHRISTIAN SCIENCE FOR ALL!!

No more Aches and Pains! No more Sighs, Sorrows and Suffering!
No more Medicines, Crutches and Splints! No more Operations!
No more Church Services and Sacraments!
No more Easter Offerings! No more Doctors' Bills!

NO MORE DEATH!

Only have Faith. Faith and Illness cannot coexist.
Waste no more money on Churches and Hospitals; Burn them or lock them up.

DOWN WITH PARSONS AND DOCTORS AND LIVE FOR EVER!!

If this silly sect outlives the attacks of Mark Twain it evidently contains within itself the elements of its death. No creed, the followers of which could produce such desperate rubbish, can hope for support from thinking people, and some of the persons who at present contribute to the maintenance of Mrs. Eddy as a divine person will soon cease from bolstering up a faith that is born of hysteria and nurtured on lies. What does "No More Death" mean in this circular? Does any Christian Scientist want to wager that Mrs. Eddy will live till, say, she is 100? It has been suggested that the card has been manufactured with the intent to bring Christian Science into ridicule. Perhaps, but we think that the composition looks genuine.

## WANTED—A HOME.

*To the Editors of* THE LANCET.

SIRS,—I wish to hear of an institution where a female patient could be given rest and massage treatment at moderate expense and shall be greatly obliged to any correspondent who may be able to inform me of such.

I am, Sirs, yours faithfully,
S. KELLETT SMITH, F.R.C.S. Eng.

23, Russell-street, Liverpool, May 11th, 1903.

## A WARNING.

*To the Editors of* THE LANCET.

SIRS,—May I through the medium of your columns warn intending applicants for the post of "doctor" to the St. Luke's Hospital, Chemulpo, Korea, to make a searching inquiry into the nature of this so-called hospital and to have a precise legal document drawn up lest they should embark for that far-off country only to find themselves—to use the mildest term possible—greatly disappointed.

I am, Sirs, yours faithfully,
W. A. ANDERSON, M.B. Edin.

Denbigh-road, Bow, E., May 9th, 1903.

## THE PROSTITUTION OF THE POST OFFICE.

THE Post Office having confessed its inability, or its unwillingness, to do anything to stop the flood of betting circulars, lottery advertisements, and notices of quack medicines which daily and hourly infest the letter-boxes of His Majesty's liege we are going to refer to the matter again. Various correspondents have forwarded to us certain slips of blotting paper which they have received from America in open envelopes. The blotting paper, against which as blotting paper we have nothing to say, is printed over with testimonials to the virtues of a certain drug and, moreover, emblazoned in large letters with the names of such diseases as irregular menstruation, amenorrhœa, and dysmenorrhœa. Why should matter like this be sent broadcast through the post in open envelopes and why should articles evidently intended to be laid on a writing-table trumpet forth the

sufferings of women? Thus, for example: "Mrs. E. B., aged 29, married four years, no children, had suffered every month with dysmenorrhœa and a somewhat fœtid discharge." We are sorry to see, too, that the slips of blotting paper in question tell readers that the drug can be obtained through an English agent. The drug in question may be a good one for all we know but it is not fitting that any respectable firm should advertise its wares in this manner and it is still less fitting that His Majesty's Postmaster-General should make himself the agent for the transmission of such nastiness.

## POINTS IN ETIQUETTE.

*To the Editors of* THE LANCET.

SIRS,—Permit me to "propound a case for your arbitrament." L.R.C.P. is a general practitioner in attendance upon a patient, Mrs. B. Dr. C is a consultant, a Fellow of L.R.C.P.'s college and a former lecturer in the school where he was educated. Mrs. B. desiring a second opinion, writes (irregularly, of course) to Dr. C, requesting his advice. Dr. C, on learning that L.R.C.P. is in attendance, declines to see her except in consultation and advises her to communicate with L.R.C.P. and to ask him to make the necessary arrangements. Mrs. B thereupon requests L.R.C.P. to arrange a consultation with Dr. C. L.R.C.P. declines to do so, but writes to Dr. C, saying that a consultation is unnecessary, but that, since he (L.R.C.P.) understands that Dr. C wishes to see the patient, he may do so if he likes. Dr. C informs L.R.C.P. that it is not he who wishes to see the patient, but the patient who wishes to see him, and declines to have anything to do with the case except in consultation. L.R.C.P. replies, inclosing his communication in an envelope addressed to "Mr. C." He again declines the consultation on the ground that Mrs. B is quite satisfied with the treatment she is receiving and accuses Dr. C of interfering with his patient. To this Dr. C replies, regretting the tone of L.R.C.P.'s communication, again repudiating the charge of interference, and stating that the rules of the profession require a consultation. Has L.R.C.P. any grievance against Dr. C? Is he justified in accusing him of interference? Is L.R.C.P. within his right in declining the consultation? I am, Sirs, yours faithfully,

May 7th, 1903. IATROS.

*** The right to demand a consultation rests with the patient quite as much as with the general practitioner. Therefore if Mrs. B wishes for a consultation L.R.C.P. must agree to her wishes or withdraw from the case. From the account before us Dr. C. has acted perfectly properly and L.R.C.P. has not.—ED. L.

## PRIZE FOR A DUST-ARRESTING RESPIRATOR.

UNDER the terms of the Benjamin Shaw trust the council of the Society of Arts is offering a prize of a gold medal, or £20, for the best dust-arresting respirator for use in dusty processes of manufacture and in dangerous trades. Full particulars of the conditions which the apparatus will be required to fulfil can be obtained from the secretary of the Society of Arts, John-street, Adelphi, London, W.C. The competition is not limited to British subjects and is open until the end of the present year.

## A CURIOUS ADVERTISEMENT.

THE following curious advertisement appeared in the *Shields Daily Gazette and Shipping Telegraph* of March 17th last. This paper, by the way, claims to be the oldest daily newspaper in the provinces, having been established as an evening daily in 1855, although originally established in 1849 as a weekly newspaper:—

PUBLIC NOTICES.

A DEBT OF HONOUR due to Dr. Bains for the most prompt and careful attention paid to my beloved wife during her severe illness, trusting that the people in the Borough of South Shields will patronise his profession; we are also very greatly indebted to all our friends for the sympathetic kindness and attention given to my wife during her trouble; also the kindness and respect shown to her by our friends from Tynemouth Castle and in the vicinity of Tynemouth on the 15th inst., when on that date she was interred at Harton Cemetery. I also wish to bring to notice the manner in which my most esteemed friend, J. Milnes, catered for the same, and sincerely trust that our friends in South Shields will appreciate and patronise 84 New Market Dining Rooms.—Signed, JABEZ HAWKINS SHEPPARD and A. H. EWART,

181 Victoria Road. her most bereaved husband and father.

We do not see the name "Bains" in the Medical Register or the Medical Directory, but we trust that if the gentleman referred to is a qualified medical man he received not only the "Honour" but something more substantial.

## POST-MORTEM POLITENESS.

A CORRESPONDENT of the *Law Times* sent to that journal a letter in the course of which he said: "Some time since we gave notice to the Land Registry of the deposit of a land certificate which had been made by way of creating an equitable charge. Then the equitable mortgagee for whom we gave the notice died and probate was registered at the registry. Shortly afterwards the equitable charge was paid off and all the executors signed and sent to the registrar a withdrawal of the notice of deposit. Thereupon the registry thoughtfully posted a notice addressed to the deceased at his earthly place of business which runs as follows: 'To A.B.—An application, dated the 25th March, 1903, signed by your executors and purporting to be a withdrawal of notice of deposit of land certificate affecting the title above referred to, has been left in this office for registration. If you have any objection it should be stated in writing.'" One of the executors thereupon wrote to the deceased's solicitors saying that as he was not in communication with the other world he could not say whether the deceased had any objection or no. As we believe that an executor has no *locus standi* until the party for whom he is executor is dead we should very much like to know why the registry wrote to a dead man and in what manner they expected him to reply. But the delicate feeling of the registry is beyond all praise and the only parallel of which we can think is the case of a poor woman whose two children had been invited to a Christmas tree at a hospital. On the appointed day only one child, a girl, arrived and on the house physician asking where her brother was she said, "Please, doctor, mother said I was to say she was very sorry she couldn't let Tommy come." Whereupon the house physician expressed a hope that Tommy's absence was not on account of illness and received the startling answer, "Please, doctor, 'e's dead."

A CORRESPONDENT asks us in connexion with an analytical report which appeared in our columns upon a natural mineral water (Hunyadi János), What exactly is the meaning of "constant composition?" Does the expression "a composition that is constant" convey a clearer idea to our correspondent? If not, and if it be possible to make what is already plain English plainer, we may add that the expression means that the proportion of dissolved salts in the water is always the same, that the ratio of salts to each other does not vary, and that therefore the therapeutic effect may be expected to be the same with the same doses.

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*P. Q.*—1. A stamp must be affixed by anyone desiring to give a legal receipt for a sum of money of £2 or over. We cannot enter into the question of the exceptions to this general rule. The person who has paid the money can insist upon the receipt being given to him in legal form, but as a matter of practice no such demand is made in very many instances, while some firms supply their employés with receipt forms already stamped. 2. As a rule the person who buys a practice protects its sale value, in case he should desire to sell it again, by preventing the occurrence described by our correspondent. The wording of the agreement will settle the question.

*Agricola.*—The method of payment is as novel to us as it is to our correspondent. We are hardly prepared to express any opinion upon its possible working, but we think that perhaps 250 monthly tickets would be about represented by the suggested sum. The arrangement must be tried before any definite verdict can be passed on it.

*Vendor.*—We do not think that there is any established custom, although it seems to us a fair thing to ask three years' gross receipts. The circumstances are such that it would be well to employ an agent, giving him some discretion as to terms but fixing, of course, the minimum.

*Locum* will find in various issues of THE LANCET all the information he requires. Different States of the United States have different regulations with regard to medical practice. *Vide* THE LANCET, vol. ii., 1896, pp. 768 and 969.

*Justitia.*—We quite agree with our correspondent that the matter hardly needs comment. That being his opinion we wonder why he sent us the particulars.

**COMMUNICATIONS not noticed in our present issue will receive attention in our next.**

## METEOROLOGICAL READINGS.

*(Taken daily at 8.30 a.m. by Steward's Instruments.)*

THE LANCET Office, May 14th, 1903.

| Date. | Barometer reduced to Sea Level and 32° F. | Direction of Wind. | Rainfall. | Solar Radiation in Vacuo. | Maximum Temp. Shade. | Min. Temp. | Wet Bulb. | Dry Bulb. | Remarks at 8.30 a.m. |
|---|---|---|---|---|---|---|---|---|---|
| May 8 | 29·70 | E. | 0·40 | 74 | 54 | 45 | 46 | 49 | Overcast |
| " 9 | 29·70 | S.W. | — | 76 | 56 | 48 | 48 | 50 | Hazy |
| " 10 | 29·75 | W. | 0·55 | 96 | 59 | 48 | 47 | 50 | Cloudy |
| " 11 | 29·77 | N.E. | 0·69 | 80 | 53 | 46 | 45 | 46 | Raining |
| " 12 | 29·84 | N.E. | 0·03 | 109 | 56 | 42 | 42 | 46 | Cloudy |
| " 13 | 29·88 | WSW | — | 105 | 61 | 41 | 48 | 50 | Fine |
| " 14 | 29·96 | W. | — | 90 | 60 | 49 | 52 | 56 | Cloudy |

**During the week marked copies of the following newspapers have been received:** *Lincolnshire Echo, Portsmouth Evening News, Hertfordshire Mercury, Durham County Advertiser, Southern Times and Dorset County Herald, South London Press, Highland News, Burnley and District Times, Staffordshire Sentinel, Westminster Gazette, Windsor and Eton Express, Standard, Manchester Guardian, City Press, Mid-Sussex Times, Walsall Advertiser, Birmingham Daily Mail, Yorkshire Mercury, Herts Advertiser, Reading Mercury, Mining Journal, Midland Medical Journal, Surrey Advertiser, &c.*

# Medical Diary for the ensuing Week.

## OPERATIONS.

### METROPOLITAN HOSPITALS.

**MONDAY (18th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.).

**TUESDAY (19th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.) London Throat (9.30 A.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.).

**WEDNESDAY (20th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

**THURSDAY (21st).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat, (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

**FRIDAY (22nd).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.).

**SATURDAY (23rd).**—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

## SOCIETIES.

**MONDAY (18th).**—MEDICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Annual Conversazione. Reception by the President. 8.45 P.M. Oration: Sir W. H. Bennett, K.C.V.O.: Some Reflections, mainly Ethical, upon the Present Position of Operations in the Practice of Surgery.

**TUESDAY (19th).**—PATHOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. General Meeting. Election of Officers. Card Specimens:—Dr. C. P. White: (1) Atrophied Kidney; (2) Tuberculous Cavities in the Liver.—Dr. Dudgeon: (1) Multiple Cyst of the Mesentery; (2) Tuberculous Cavities in the Liver.—Dr. H. M. Fletcher: Congenital Cystic Disease of the Liver.—Dr. Drysdale: Aortic Aneurysm rupturing into Left Ventricle. Papers:—Dr. R. S. Trevor: Multiple Aneurysms of the Splenic Artery associated with Calcification of the Portal Vein.—Dr. Drysdale: Primary Sarcoma of the Heart.—Mr. Barnard and Mr. Rigby: Case of Pulsating Exophthalmos.—Dr. F. P. Weber: Malignant Endocarditis associated with Large White Kidneys.—Dr. Seligman and Dr. Strong: A New Method of Blood Counting.—Mr. J. H. Parsons and Mr. Rockliffe: Plexiform Neuroma of the Orbit.

**WEDNESDAY (20th).**—ROYAL METEOROLOGICAL SOCIETY (70, Victoria-street, Westminster, S.W.).—4.30 P.M. Papers:—Mr. C. P. Hooker: The Relation of the Rainfall to the Depth of Water in a Well.—Mr. W. Marriott: The Frost of April, 1903.

ROYAL MICROSCOPICAL SOCIETY (20, Hanover-square, W.).—8 P.M. Exhibition of Pond Life.

**THURSDAY (21st).**—BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY (20, Hanover-square, W.).—4.30 P.M. General Meeting. Election of Officers and Council. Report of Council. 5 P.M. Address: Dr. G. Oliver (Harrogate): A Few Jottings in Physiological Medicine. 7 P.M. Annual Dinner at the Monico Restaurant, Piccadilly Circus.

HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Clinical Evening.

**FRIDAY (22nd).**—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Annual General Meeting. Election of Officers for Session 1903-04. Papers:—Dr. J. P. zum Busch: Ileo-cæcal Invagination by a Meckel's Diverticulum.—Dr. P. Kidd: Sequel to a Case shown at the Society in 1901 as Congenital Morbus Cordis.—Dr J. P. Parkinson: Sequel to a Case of Great Dilatation of the Heart.

## LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**MONDAY (18th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. J. J. Pringle: Clinique. (Skin.) 5.15 P.M. Dr. R. Cautley: Hæmaturia in Children.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Treatment of some Injuries and Emergencies.

**TUESDAY (19th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. C. O. Hawthorne: Clinique. (Medical.) 5.15 P.M. Dr. L. Lack: Otœna.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. C. Williams: X Rays.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Mr. Gunn: Visual Fields in Medical Diagnosis.

**WEDNESDAY (20th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. J. Smith: Clinique. (Surgical.) 5.15 P.M. Dr. Leonard Williams: Some Practical Points in Climatology.

POST GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Lloyd Williams: Extraction, When and How.

**THURSDAY (21st).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.) 5.15 P.M. Dr. G. Drummond Robinson: Uterine Displacements.

POST GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Davis: Diseases of the Kidney—Nephritis.

ROYAL INSTITUTION OF GREAT BRITAIN (Albemarle-street, W.).—5 P.M. Prof. S. H. Vines: Proteid-Digestion in Plants.

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Tottenham Hospital, N.).—4 P.M. Clinical Lecture:—Dr. G. N. Meachen: Dermatological.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (7, Fitzroy-square, W.).—4 P.M. Dr. J. B. Squire: The Elements of Prognosis in Consumption. (Post-Graduate Course.)

CHARING CROSS HOSPITAL.—4 P.M. Dr. Eden: Gynæcological Demonstration and Cases. (Post-Graduate Course.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Penrose: Demonstration of Selected Cases.

GUY'S HOSPITAL MEDICAL SCHOOL—UNIVERSITY OF LONDON (Physiological Theatre).—4 P.M. Dr. E. W. Ainley Walker: The General Pathology of Acute Rheumatism. (Gordon Lecture.)

**FRIDAY (22nd).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. T. Collins: Clinique. (Eye.) 5.15 P.M. Dr. S. Taylor: Parasites of the Gastro-intestinal Canal.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Moullin: Pelvic Inflammation.

## EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.*

*Lectures, original articles, and reports should be written on one side of the paper only,* AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

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